How Carbon Taxes Collapsed Pennsylvania's Generation Investment and What It Means for the Data Center Boom

BY: JOSHUA SCHUBERT
POLICY ANALYST
COMMONWEALTH FOUNDATION

JUNE 29, 2026

Introduction

Pennsylvania is the largest exporter of electricity in the nation, the powerhouse of the PJM interconnection, and ground zero for America's data center and Artificial Intelligence (AI) infrastructure boom. Announcements for data center investment in the commonwealth have reached more than $70 billion, including $25 billion from Blackstone, $20 billion from Amazon, a $10 billion gas-powered data center campus at the former Homer City coal plant, and a $1.6 billion restart of Three Mile Island's (TMI) nuclear reactor under a twenty-year agreement with Microsoft.[1,2,3,4]

[1] Governor's Office, Commonwealth of Pennsylvania, "Governor Shapiro Announces Amazon Investment of $20 Billion" (June 10, 2025). Available at: https://www.pa.gov/governor/newsroom/2025-press-releases/gov-announces-amazon-to-invest--20b-in-pa--largest-capital-inves

[2] Sen. David McCormick Energy & Innovation Summit, Carnegie Mellon University, July 15, 2025 (Blackstone $25B, Google $25B+ PJM, PPL/Blackstone JV, CoreWeave, Homer City/EQT announcements). Governor's Office press releases available at: https://www.pa.gov/governor/newsroom/2025-press-releases/under-gov-shapiro--pa-is-a-national-leader-in-economic-growth--a

[3] Homer City Energy Campus project announcement (April 2, 2025); GE Vernova turbine supply agreement and EQT exclusive gas supply agreement (July 2025). Available at: https://www.homercityredevelopment.com/news

[4] Constellation Energy, "Constellation to Launch Crane Clean Energy Center" (September 20, 2024). U.S. Department of Energy loan announcement (November 2025). Available at: https://www.constellationenergy.com/news.html

Yet, Pennsylvania is simultaneously a cautionary tale. From 2019 through 2024, regulatory uncertainty over the Regional Greenhouse Gas Initiative (RGGI) shrank Pennsylvania's proposed generation pipeline by 62% in cumulative pipeline volume compared to the prior six-year period, and by 38% counting only genuinely new projects entering the pipeline. Developers who were building power plants at the fastest rate in the PJM region stopped proposing projects. Three large natural gas plants were cancelled. The state's largest coal plant and a nuclear reactor closed. These reductions in supply, coinciding with new data center demand for electricity, rippled across the thirteen-state PJM grid: wholesale capacity prices spiked 833%, and the grid fell short of its reliability standard for the first time in history.[5,6]

Pennsylvania demonstrates a clear lesson. Any state imposing or threatening carbon taxes will see reduced generation, often requiring electricity imports to achieve the same level of reliable operable generation. New investment adapts, targeting states with regulatory certainty and a tax climate friendlier to new generation projects. Pennsylvania's experience offers a transferable framework: what happens when state energy policy discourages investment in an industry where the state has a comparative advantage, and what policies elected leaders can pursue to prevent that outcome.

The Evidence: What Carbon Tax Uncertainty Did to Pennsylvania's Generation Pipeline

In October 2019, then-Gov. Tom Wolf directed the Department of Environmental Protection to join RGGI, a regional cap-and-trade program that would impose carbon costs on fossil-fuel generators. Six years of regulatory uncertainty followed—rulemaking, litigation, legislative challenges, a Commonwealth Court injunction—that ended only when Act 45, part of the 2025-2026 Pennsylvania State Budget, formally repealed Pennsylvania's RGGI participation in November 2025. No carbon allowances were purchased; no revenue was collected. But the uncertainty and credible threat of higher taxes proved devastating.

The generation proposal collapse: Analysis of U.S. Energy Information Administration (EIA) Form 860 data for all generation types reveals the scale of the damage. Two matched six-year periods, first the pre-RGGI baseline (2013–2018), compared against the RGGI uncertainty era (2019–2024), reveal Pennsylvania's proposed generation pipeline declined 62% in cumulative pipeline volume—a measure that sums each year's proposed megawatts across the six-year period, capturing the sustained intensity of development activity rather than only new entries. At the 2017 peak during the Marcellus Shale boom, Pennsylvania's proposed generation pipeline contained 12,873 megawatts (MW). By 2022, it had collapsed 90% to 1,286 MW. Since this analysis confines itself to a generation proposal's nameplate capacity, rather than accounting for a project's Effective Load Carrying Capability (ELCC), which measures a generation type's contribution to grid reliability, it understates the problem.[7]

The Ohio comparison: Ohio shares Pennsylvania's key characteristics: PJM membership, Marcellus and Utica Shale gas access, a comparable coal-to-gas fuel transition, and exposure to the same wholesale electricity market, commodity prices, and federal regulations. The critical difference is that Ohio did not face RGGI. During the same period that Pennsylvania's proposal volume collapsed, Ohio's grew. Counting only genuinely new proposals entering each state's proposal pipeline—a stricter measure than cumulative pipeline volume—Pennsylvania projects declined 38% (13,232 MW to 8,202 MW) while Ohio's grew 33% (8,406 MW to 11,213 MW), a 71-percentage-point swing in investment momentum between neighboring states sharing the same wholesale market.[8]
Gas prices remained stable. The most intuitive alternative explanation for this trend is that falling natural gas prices discouraged investment, but the figures show little variation. The correlation

[5] U.S. Energy Information Administration, Form EIA-860 Annual Electric Generator Report, 2008–2024. Data available at: https://www.eia.gov/electricity/data/eia860/
[6] PJM Interconnection, 2025/2026 Base Residual Auction Results (July 2024), Table 2 (RTO historical clearing prices). Available at: https://www.pjm.com/markets-and-operations/rpm
[7] U.S. Energy Information Administration, Form EIA-860 Annual Electric Generator Report, 2008–2024. Data available at: https://www.eia.gov/electricity/data/eia860/
[8] U.S. Energy Information Administration, Form EIA-860 Annual Electric Generator Report, 2008–2024. Data available at: https://www.eia.gov/electricity/data/eia860/

between Henry Hub spot prices and Pennsylvania's proposed generation is essentially zero (r = −0.08). Gas prices averaged virtually the same across the two periods, i.e., $3.24 per million British thermal units (MMBtu) pre-RGGI and $3.28 per million during RGGI. Pennsylvania's pipeline hit its absolute trough in 2022, the year Henry Hub spot averaged $6.42 per MMBtu, which was the highest since 2008. Ohio maintained a robust pipeline throughout the same price environment, confirming that Marcellus gas generation remained commercially viable. The constraint was specific to Pennsylvania's regulatory environment.[9,10]

The proposal to operation conversion collapse: Analysis of project lifecycle data following entry into the proposal pipeline reveals something more granular than a simple decline in proposals. Across all generation types, Pennsylvania's conversion rate fell from 73% (9,709 MW of 13,232 MW proposed reaching operable status) to 9% (764 MW of 8,202 MW) during the RGGI period. Ohio's conversion rate declined modestly, from 62% to 48%—reflecting real headwinds like the PJM interconnection queue backlog, but nothing approaching Pennsylvania's freefall. For natural gas specifically, the collapse is even starker. During 2013–2018, Pennsylvania's pipeline operated at a 75% conversion rate with 9,562 MW of natural gas proposals reaching operable status. During the RGGI uncertainty period, only 40 MW of the proposed 4,438 MW of natural gas generation projects converted to operable, implying a conversion rate of less than 1%. The result was a 99.6% collapse in gas conversion, consisting entirely of small distributed projects, like the Pittsburgh Airport gas plant. No utility-scale natural gas generator proposed during 2019–2024 has come online. Meanwhile, Ohio converted 3,265 MW of natural gas within the same window. The market for gas generation existed, but Pennsylvania's regulatory environment killed investment.[11]

Zero gas proposed, 2019–2023: Of the 4,438 MW of natural gas that entered Pennsylvania's pipeline during 2019–2024, 4,398 MW is the Homer City coal-to-gas repowering project proposed in 2024, with initial power production targeted for 2027. Driven by the new increase in demand for generation driven by the data center boom, the project was viable before RGGI was abrogated in PA's November 2025 state budget. Zero new utility-scale natural gas generation was proposed in Pennsylvania from 2019 through 2023. Over the same five years, Ohio received thousands of megawatts in gas proposals.

The lag effect: Large generation projects take three to four years from proposal to operation. Pennsylvania's completions in 2019–2021 (4,881 MW) were almost entirely projects proposed before the RGGI announcement—they were under construction before the executive order. The real impact arrives in 2022–2024, when the pipeline runs dry: Pennsylvania completed just 648 MW (8 MW of gas) while Ohio completed 4,107 MW (2,055 MW of gas). That is a 6-to-1 gap in total completions and a 257-to-one gap in gas completions during the years when Pennsylvania should have been delivering new capacity.[12]

Industry leaders confirmed what the data shows.

> "*Since RGGI was proposed, there has not been a new natural gas-powered plant built in Pennsylvania, but some of the surrounding states have built plants and drawn jobs out of the commonwealth.*"
> — Shawn Steffee, Boilermakers Local 154 (PA Supreme Court hearing, May 2025)[13]

[9] U.S. Energy Information Administration, Form EIA-860 Annual Electric Generator Report, 2008–2024. Data available at: https://www.eia.gov/electricity/data/eia860/
[10] U.S. Energy Information Administration, Henry Hub Natural Gas Spot Price, annual and monthly historical series. Available at: https://www.eia.gov/dnav/ng/hist/rngwhhdd.htm
[11] U.S. Energy Information Administration, Form EIA-860 Annual Electric Generator Report, 2008–2024. Data available at: https://www.eia.gov/electricity/data/eia860/
[12] U.S. Energy Information Administration, Form EIA-860 Annual Electric Generator Report, 2008–2024. Data available at: https://www.eia.gov/electricity/data/eia860/
[13] Shawn Steffee, Business Manager, Boilermakers Local 154, testimony at Pennsylvania Supreme Court hearing on RGGI (May 13, 2025). Available at: https://www.wccsradio.com/2025/05/13/pa-supreme-court-to-hear-testimony-today-on-rggi/

> *"RGGI created uncertainty for our energy infrastructure—and that caused plant owners to hesitate on investments, delay upgrades, postpone maintenance, shelve new projects, and ultimately minimize employment opportunities. For the Building Trades, this resulted in fewer jobs for our members."*
>
> — Jim Enders, UA Local 520 Plumbers & Pipefitters (November 2025)[14]

The counterfactual of 4,800–8,400 MW lost. Three independent methodological approaches estimate where Pennsylvania's operable generation capacity would stand absent RGGI. Component-based analysis (adding back specific plants and cancelled projects with documented RGGI connections) produces a conservative floor of 4,793 MW. Trajectory-based projection (continuing Pennsylvania's pre-RGGI growth rate, tapered for natural market maturation) produces an upper range of 8,444 MW. A third separate pipeline-based methodology, tracking individual project lifecycles rather than aggregate capacity, produces scenarios ranging from 3,722 MW to 9,028 MW that converge closely with the other estimates. A fourth approach, counting only individually documented losses discounted by the pre-RGGI conversion rate of 73%, produces a floor of 3,833 MW that alone exceeds PJM's first-ever reliability shortfall by more than 80%. This convergence from independent analytical approaches substantially strengthens the finding that Pennsylvania lost generation capacity sufficient to supply 2.4 to 4.2 million homes with electricity.[15]

The pipeline analysis decomposes the capacity loss into two mechanisms. Entry suppression, or never proposed projects, accounts for roughly 3,700 MW, whereas completion failure accounts for roughly 5,300 MW. Under RGGI, Pennsylvania's generation collapse is not a story of deterrence but destruction. RGGI uncertainty primarily killed projects already in development. Three illustrate this pattern: the Renovo Energy Center (1,026 MW, cancelled April 2023), Robinson Power (1,000 MW, cancelled October 2021), and the Allegheny Energy Center (639 MW, cancelled November 2023)—a combined 2,665 MW of natural gas generation that entered the proposal pipeline and never came online. While the specific cited causes were issues with permitting and environmental litigation, the overall policy environment, including RGGI, restricted supply, making such projects less viable on the margin.[16]

The transferable lesson: States that impose carbon costs or energy mandates will see generation capital migrate to competing jurisdictions, even if they otherwise have a comparative advantage in that industry. Notably, as Pennsylvania projects were cancelled, Ohio's pipeline grew 33%. This principle applies whether the policy is RGGI, a state-level carbon tax, or an aggressive renewable portfolio standard. The mechanism is the same: regulatory uncertainty and hostility raises the risk premium on long-lived generation assets, and developers respond rationally by building elsewhere if they build at all.

The Consequence: From Underinvestment to Reliability Crisis

Understanding why lost generation capacity matters requires a distinction between capacity and generation. Capacity is the grid's ability to produce power when called upon. Generation is the electricity produced and delivered. The PJM Interconnection, the U.S.'s largest regional grid operator serving Pennsylvania plus twelve other states and the District of Columbia, runs a capacity market to ensure enough generation resources are available to meet peak demand plus a 20% reserve margin as insurance against blackouts. When capacity supply is stagnant relative to increasing demand, the price rises sharply, contributing directly to greater electricity bills. Pennsylvania's stalled generation investment collided with surging data center demand to produce a capacity crisis now playing out across PJM in real time. Three consecutive capacity auctions set price records:

[14] Jim Enders, UA Local 520 Plumbers & Pipefitters, statement on RGGI repeal and permitting reform (November 2025). Pennsylvania Senate Republican Caucus. Available at: https://www.pasenategop.com/news/employers-trade-unions-and-legislative-leaders-new-permitting-reforms-stopping-rggi-will-boost-pas-economy/

[15] Commonwealth Foundation, "Pennsylvania Generation Capacity Counterfactual Analysis" and "Pipeline-Based Counterfactual Methodology" (2026). Methodology documents and underlying EIA Form 860 data (2008–2024) provided as supplemental files. https://www.eia.gov/electricity/data/eia860/. See also: Commonwealth Foundation, "Pennsylvania's RGGI Odyssey: Six Years of Lost Investment Underline Danger of New State Energy Taxes" (May 2026), https://commonwealthfoundation.org/research/pennsylvanias-rggi-odyssey/.

[16] U.S. Energy Information Administration, Form EIA-860 Annual Electric Generator Report, 2008–2024. Data available at: https://www.eia.gov/electricity/data/eia860/

Price spike: Held in July 2024, PJM's capacity auction for the 2025/2026 delivery year cleared at $269.92 per megawatt-day an over eight times increase from the prior year's $28.92. Total cost to load jumped from $2.2 billion to $14.7 billion. In response, state governors, including Pennsylvania's Josh Shapiro, sued PJM to impose a price ceiling. The subsequent two auctions hit the PJM-wide price ceiling, clearing at $329.17 and $333.44 per megawatt-day. Total costs to load were $16.1 billion and $16.4 billion, respectively. PJM's own simulation of the 2026/2027 auction without the cap produced a clearing price of approximately $389, suggesting the true market-clearing price remains materially above the administrative ceiling.[17]

Reliability shortfall: The December 2025 auction (2027/2028 delivery year) marked the first time in PJM history the system fell short of its reliability requirement—by 6,623 MW, which is sufficient capacity to supply roughly 3.3 million homes. PJM achieved only a 14.8% reserve margin against its 20% target. While improved load forecasting subsequently narrowed the projected shortfall, the structural message was unmistakable: the grid cannot secure enough generation to meet its own reliability standard.[18]

Ratepayer cost: At the 2024/2025 auction clearing price of $28.92/megawatt-day, a typical residential customer's capacity charge component was approximately $11 annually. At the 2025/2026 price of $269.92/megawatt-day, that same component rises to approximately $99, implying an $88 annual increase in the capacity portion of the bill alone. PJM estimated the capped 2026/2027 prices would produce 1.5% to 5% total bill increases, depending on the state. Wholesale capacity is only a fraction of the total electricity bill, but it is the fraction most directly driven by generation investment decisions.[19]

The data center demand. PJM's peak load forecast grew by approximately 5,100 to 5,400 MW year-over-year in each of the last two auctions, with the vast majority attributable to data center demand. PJM's 2026 Long-Term Load Forecast, released January 14, 2026, projects the grid's summer peak load will climb roughly 66,000 MW over the next ten years, from approximately 156,000 MW today to 222,000 MW by 2036. The annualized 10-year growth rate of 3.6% per year stands in stark contrast to the 0.3% annual growth PJM projected as recently as 2021, before data centers began reshaping the outlook. In PJM's own words, "the growth rate remains higher than anything we have seen in recent decades."[20]

RGGI is responsible for higher capacity prices: If Pennsylvania's pipeline had continued operating at pre-RGGI levels, 4,800 to 8,400 MW of additional capacity would be operating in Pennsylvania and available in PJM today, substantially easing the gap between supply and demand that produced record market clearing prices and the first-ever reliability shortfall. In fact, PJM's January 2026 load forecasting also cut near-term 2028 peak demand by ~4,400 MW, narrowing the projected shortfall to an estimated 2,200 MW. This means the *lower* estimate of lost counterfactual operable capacity (4,800 MW) in 2025 is more than double the projected 2028 shortfall. The capacity crisis is a consequence of policy choices that discouraged investment when investment was most needed.[21]

The transferable lesson: Generation underinvestment compounds over time. The lag between policy-driven deterrence and its consequences—three to five years for generation effects, longer for reliability impacts—means that, by the time the crisis is visible, the damage is unavoidable. States considering energy mandates or carbon pricing should model not just the direct compliance costs, but also the second-order effects on generation investment in an environment with growing electricity demand.

---

[17] PJM Interconnection, 2025/2026 Base Residual Auction Results (July 2024), Table 2 (RTO historical clearing prices). Available at: https://www.pjm.com/markets-and-operations/rpm
For further analysis, see Joshua Schubert, "Why PJM's Price Cap Costs Pennsylvanians," Commonwealth Foundation, April 17, 2026, https://commonwealthfoundation.org/blog/why-pjms-price-cap-costs-pennsylvanians/.

[18] PJM Interconnection, 2027/2028 Base Residual Auction Results (December 2025). Available at: https://www.pjm.com/markets-and-operations/rpm

[19] PJM Interconnection, 2027/2028 Base Residual Auction Results (December 2025). Available at: https://www.pjm.com/markets-and-operations/rpm

[20] PJM Interconnection, *2026 Long-Term Load Forecast Report* (January 14, 2026), available at pjm.com/library/reports-notices/load-forecast/2026-load-report.pdf

[21] PJM Interconnection, *2026 Long-Term Load Forecast Report* (January 14, 2026), Page 5, available at pjm.com/library/reports-notices/load-forecast/2026-load-report.pdf

The Irony: Proposals to Repeat the Carbon Tax Mistake

In November 2025, Act 45 formally ended Pennsylvania's RGGI participation. Yet Gov. Josh Shapiro continues to champion a state-only carbon tax as part of his Lightning Plan.[22] The plan also includes mandates to generate 35% of electricity from unreliable power. In short, he is working to replicate RGGI's investment-suppressing effects.

The Pennsylvania Climate Emissions Reduction Act (PACER): House Bill 503 is a cap-and-invest carbon pricing program requiring fossil-fuel generators above 25 MW to purchase emissions allowances. This is structurally similar to RGGI: it imposes costs on dispatchable generation that are competing with generators in non-PACER states. PACER is state-administered rather than regional, and returns 70% of revenue as consumer rebates. The Commonwealth Foundation estimates PACER would impose $2.2 billion in new electricity costs on Pennsylvanians, even after accounting for the consumer rebate. But the investment suppression mechanism is the same as RGGI's: for supply considerations, it doesn't matter if you rebate a portion of a tax to consumers, because the full tax imposition deters investment. Developers making twenty-year capital commitments will weigh PACER's costs against building in other states where no such costs exist, if it is still viable to build at all.[23,24]

The Pennsylvania Reliable Energy Sustainability Standard (PRESS): House Bill 501 would increase Pennsylvania's renewable mandate from approximately 8% Tier I sources (including wind, solar, and advanced nuclear technologies not yet deployed at commercial scale) to 35% by 2035. Another 10% must come from Tier II sources including hydropower, biomass, fuel cells, and combined heat and power. Additionally, PRESS would introduce Tier III, covering waste coal, municipal solid waste, and natural gas co-fired with at least 20% clean hydrogen, to reach 5% by 2029. In total, by 2035, 50% of the state's energy must be generated by low-carbon sources. The cost implications are substantial: A Commonwealth Foundation report written by Always On Energy Research found PRESS alone would impose $155 billion in new electricity costs over ten years.[25]

The mandate also creates a reliability disaster. PJM's current methodology accredits wind at roughly 14% and solar at 38% of nameplate capacity for reliability purposes. Mandating 35% of supply from resources that contribute 14% to 38% of their nameplate capacity to reliability means Pennsylvania needs far more installed capacity than the mandate implies to maintain the same level of grid reliability. This technical argument is often lost in the political debate: renewable mandates at this scale do not just change the fuel mix, they change the ratio of installed capacity to reliable capacity, requiring the grid to carry substantially more total generation in nameplate capacity to deliver the same reliability when accounting for ELCC.[26,27]

A Renewable Mandate on Data Centers: HB 1834, the Data Center Act (as amended February 2026), would impose a 25% renewable energy requirement on all large-load users above 25 MW. Our earlier research shows, if enacted, such a requirement would require multiple times the buildout of wind and solar in nameplate terms to maintain the same reliability as a natural gas plant with a far smaller geographic footprint.[28]

---

[22] Office of Governor Josh Shapiro, "Governor Shapiro Unveils 'Lightning Plan' to Strengthen Commonwealth's Energy Economy, Lower Costs for Consumers, Protect Jobs, and Take Real Action on Climate Change," March 13, 2025, https://www.pa.gov/governor/newsroom/2025-press-releases/governor-shapiro-unveils--lightning-plan--to-strengthen-commonwe.

[23] Pennsylvania House Bill 503 (2025), Pennsylvania Climate Emissions Reduction Act (PACER). Available at: https://www.palegis.us/legislation/bills/2025/hb503

[24] Commonwealth Foundation / Always On Energy Research, "Preventing Pennsylvania from Powering Down: Analysis of Governor Shapiro's PACER and PRESS Proposals" (2025). Available at: https://commonwealthfoundation.org/research/pacer-press-report

[25] Commonwealth Foundation / Always On Energy Research, "Preventing Pennsylvania from Powering Down: Analysis of Governor Shapiro's PACER and PRESS Proposals" (2025). Available at: https://commonwealthfoundation.org/research/pacer-press-report

[26] Pennsylvania House Bill 501 (2025), Pennsylvania Reliable Energy Sustainability Standard (PRESS). Available at: https://www.palegis.us/legislation/bills/2025/hb501

[27] PJM Interconnection, Manual 21: Rules and Procedures for Determination of Generating Capability, Appendix B (2026/2027 Delivery Year ELCC values). Available at: https://www.pjm.com/-/media/DotCom/documents/manuals/m21b.pdf

[28] Pennsylvania House Bill 1834 (2025), as amended February 2, 2026. Available at: https://www.palegis.us/legislation/bills/2025/hb1834

The transferable lesson: When a state repeals one investment-suppressing policy there will be immediate proposals for a functional replacement, continuing the regulatory uncertainty. Establishing certainty requires proactive reforms that prioritize reliable and affordable generation.

The Opportunity: What Works

Pennsylvania's 2024–2025 investment announcements demonstrate that, with strong demand, generation project investment can overcome regulatory costs, as well as contribute to the momentum to remove supply-restrictive policies. Several models emerging in Pennsylvania offer transferable lessons for any state seeking to attract data center investment while maintaining grid reliability.

Private development agreements: The TMI story embodies the full arc. The 837 MW nuclear reactor closed in September 2019. It is 837 MW of the conservative counterfactual's 4,793 MW loss. In September 2024, Constellation Energy announced a twenty-year power purchase agreement (PPA) with Microsoft to restart the reactor as the Crane Clean Energy Center, backed by $1.6 billion in private investment and a subsequent $1 billion U.S. Department of Energy (DOE) loan. A private agreement between a generator and a large consumer provided the revenue certainty that state policy could not.[29,30]

Co-located power: Homer City Generating Station (Pennsylvania's largest coal plant at 1,888 MW, whose operator explicitly cited RGGI uncertainty as a factor in its 2023 closure) is under redevelopment as a 4.4 GW natural gas-powered data center campus with an initial investment exceeding $10 billion. GE Vernova will supply turbines; EQT signed an exclusive gas supply agreement for 665,000 MMBtu per day, one of the largest single-site gas purchases in North American history. The project brings its own generation, uses existing transmission infrastructure, and converts a RGGI casualty into what could become the state's largest power facility. Co-location (building generation at the point of consumption) eliminates transmission bottlenecks and reduces ratepayer exposure.[31]

Innovative repowering: Google's $3 billion investment to modernize the Safe Harbor and Holtwood hydroelectric facilities on the Susquehanna River, combined with a twenty-year deal with Brookfield Asset Management, demonstrates that upgrades of existing infrastructure can satisfy new demand without new siting or permitting battles. Similarly, PPL's joint venture with Blackstone to build new gas-fired combined-cycle generation specifically for data center load represents a utility-private partnership model where the data center customer bears the cost and risk rather than residential ratepayers.[32]

The transferable lesson: Every successful model emerging in Pennsylvania shares a common feature: private capital bearing private risk. The state's role is to provide clear and timely permitting pathways and transparent cost-allocation rules that protect existing ratepayers. Any effort to tip the scales in favor of politically-preferred resources or the addition of energy taxes will destroy opportunities for new jobs and investment.

---

[29] Constellation Energy, "Constellation to Launch Crane Clean Energy Center" (September 20, 2024). U.S. Department of Energy loan announcement (November 2025). Available at: https://www.constellationenergy.com/news.html

[30] Pennsylvania Act 45 of 2025 (signed November 2025), formally repealing the CO_2 Budget Trading Program regulation. Statute available at: https://www.palegis.us/statutes/unconsolidated/law-information/view-statute?sessind=0&actnum=45&txttype=htm&sessyr=2025

[31] Homer City Energy Campus project announcement (April 2, 2025); GE Vernova turbine supply agreement and EQT exclusive gas supply agreement (July 2025). Available at: https://www.homercityredevelopment.com/news

[32] Google LLC, "Google to Invest $3 Billion to Modernize Pennsylvania Hydroelectric Plants" (July 2025); Brookfield Asset Management 20-year agreement. Available at: https://blog.google/company-news/outreach-and-initiatives/public-policy/pennsylvania-energy-innovation-summit/

Principles for State Energy Policy Reform

Pennsylvania's experience—six years of RGGI uncertainty, a collapsed proposal pipeline, soaring capacity prices, the first-ever PJM reliability shortfall, and more than $70 billion in data center investment hanging in the balance—yields a set of principles applicable to any state navigating the intersection of energy policy and data center development.

Freeze or reduce renewable mandates: Let the market choose the generation mix. Data center operators are already voluntarily purchasing renewable energy, signing PPAs for nuclear, and investing in carbon-free generation when it makes sense—not because a mandate requires it. State mandates on top of market-driven procurement create billions in compliance costs and lower a state's operable generation without proportional reliability or environmental benefits.

Establish transparent load forecasting: PJM's interconnection queue contains over 46,000 MW of approved projects not yet built, and the grid operator has processed more than 170,000 MW of requests since 2023. Accurate, regularly updated forecasts of large-load additions—including data centers—are essential for generation investment planning. States should require utilities to publish transparent forecasts of anticipated large-load interconnections and work with Regional Transmission Organization (RTOs) to ensure capacity market signals reflect actual demand trajectories. To achieve this, Pennsylvania House Bill 1924 was included in the omnibus budget bill to help Pennsylvania's Public Utility Commission verify requests from utilities and prevent buildout for unneeded capacity.[33,34]

Protect ratepayers through cost allocation: There is legitimate public concern that residential ratepayers will subsidize industrial electricity demand. The answer is proper cost allocation: ensuring that large-load customers pay their proportional share of grid costs, including transmission upgrades and capacity charges.

Pursue permit relief for all generation types: Reforms to streamline siting and permitting such as an online tracking system, a clear timeline for final approvals, and a deemed approved mechanism for applications that surpass timelines should equally apply to coal, gas, nuclear, hydro, storage, and renewables. States should also implement a Regulations from the Executive in Need of Scrutiny (REINS) Act. This reform sets a high bar for the imposition of costly energy mandates or changes to the permitting process by requiring legislative approval of any new regulation with an economic impact of more than $1 million a year.[35]

Enable co-location and private development agreements: States should establish clear legal and regulatory frameworks for behind-the-meter generation, co-located power, and long-term bilateral contracts between generators and large consumers. These arrangements allow data centers to bring their own power, bear their own costs, and avoid imposing perceived or actual reliability or rate burdens on residential customers.

Say no to carbon taxes: If a state imposes carbon taxes on its generators, but its neighbors in the same wholesale market do not, the result is not emissions reduction—it is emissions migration. PJM's own simulation of Pennsylvania RGGI membership confirmed this: the state's wholesale costs would rise 13% while total PJM emissions would fall only 1%, as generation shifted to Ohio, West Virginia, and Virginia. Such taxes ultimately lower the supply of operable generation, harming grid reliability.[36]

Avoid corporate welfare: Subsidies or specific tax carveouts for data centers or any particular industry or business emboldens opposition to development and shift costs to the very same

[33] PJM Interconnection, 2027/2028 Base Residual Auction Results (December 17, 2025). Available at: https://www.pjm.com/-/media/DotCom/about-pjm/newsroom/2025-releases/20251217-pjm-auction-procures-134479-mw-of-generation-resources.pdf

[34] Pennsylvania House Bill 1924 (2025), Load Forecast Accountability Act. Available at: https://www.palegis.us/legislation/bills/2025/hb1924

[35] Commonwealth Foundation, "Grading Pennsylvania's Economy" (January 2026). Available at: https://commonwealthfoundation.org/research/grading-pennsylvanias-economy/

[36] PJM Interconnection, analysis of the impact of carbon pricing on PJM wholesale costs and regional emissions, cited in Commonwealth Court proceedings on Pennsylvania RGGI regulation (2022–2023). Available at: https://www.pjm.com/-/media/DotCom/library/reports-notices/special-reports/2025/20250425-pa-rggi-2025-simulation-results.pdf

ratepayers politicians are concerned about shouldering with higher electricity costs. Economic trends come and go, but an inviting tax and regulatory environment is far more valuable to a major investor than a temporary tax credit.

Conclusion

Pennsylvania learned the hard way what happens when state policy discourages generation investment. Six years of RGGI uncertainty collapsed the state's project pipeline, contributed to PJM's first-ever reliability shortfall, and helped produce record capacity prices that every household in the region is now paying. The commonwealth sits atop the Marcellus Shale and remains the top exporter of electricity in the nation with an extensive transmission infrastructure, a skilled workforce, and significant data center investment. What that means for the public's electricity bills depends on whether state policy enables or discourages the necessary generation buildout.

The competition is real, but the opportunities available are not fixed. Policymakers cannot limit their thinking to the direct impact on power plants and their workers. Restrictions on reliable and affordable generation supply destroy opportunities for all businesses, especially a sector where electricity is a major input of production. The general welfare of Americans is at stake when policies hostile to affordable energy drive up costs in all industries. Every month of regulatory and tax uncertainty is a month in which developers weigh states that impose fewer conditions on the energy investments the grid desperately needs.

The principles outlined here, including market-driven generation mix, ratepayer protection through transparent load forecasting and cost allocation, regulatory certainty, allowing innovation through co-location and private provider agreements, and opposition to interventions such as carbon taxes, and corporate welfare demonstrate a commitment to free markets as the preconditions for American reindustrialization and national prosperity. Every state will face some version of the question Pennsylvania now confronts: how to accommodate massive new electricity demand without crushing ratepayers or compromising reliability. The states that answer it well will attract more than just generation investment; their entire economies will benefit. The states that do not will watch investment go elsewhere, losing out on opportunity with the added insult of higher electricity prices at home.

Commonwealth Foundation is Pennsylvania's free-market think tank, helping the Keystone state write the next chapter in America's story. The Foundation transforms free-market ideas into public policies, empowering all Pennsylvanians to thrive. You can learn more at commonwealthfoundation.org.

NATIONAL TAXPAYERS UNION

2026 National Taxpayers Union
122 C Street NW, Suite 700,
Washington, DC 20001
ntu@ntu.org