

Data Centers in Virginia: Myths, Facts, and What the Numbers Actually Say

Virginia hosts the largest concentration of data centers in the world. This brief separates the verified figures from the contested ones, with a focus on jobs, the most misused number in the debate. Figures are current as of this version (September 2026) and are expected to change.

THE BOTTOM LINE Data centers bring Virginia real economic benefit and real costs, and both are routinely misrepresented in both directions. The state’s own nonpartisan study (JLARC, 2024) found the industry supports about 74,000 jobs a year, but roughly four-fifths of those are temporary construction jobs; a typical finished data center employs about 50 people. JLARC also found that data centers pay their own way today, yet warned that if growth is left unconstrained, statewide electricity demand could double within a decade, raising other customers’ bills unless the added costs are assigned to the data centers themselves. Virginia has begun doing exactly that: a new large-user rate class in 2025 and, as of July 2026, a tax on data-center electricity. The honest framing is not “ban them” or “welcome them unconditionally,” but manage the trade-offs and assign the costs (power, water, land) to those who create them. How far to go is a live policy choice, and this brief lays out the options rather than picking one.

Why This Brief

Few Virginia policy debates generate more numbers, and more unreliable numbers, than data centers. Boosters cite large job and investment figures; opponents cite alarming electricity bills and water use. Many of these claims are technically sourced but selectively framed, and the underlying data changes almost monthly. This brief anchors to the most authoritative sources available, chiefly the 2024–25 work of Virginia’s own Joint Legislative Audit and Review Commission (JLARC), a nonpartisan arm of the General Assembly, and the State Corporation Commission (SCC), and flags clearly where figures are contested or fast-moving.¹

A principle guides the analysis: where a growing industry imposes real costs, the constructive response is to assign those costs to their source rather than to reject the industry outright or to let the costs fall on everyone else. That principle does not, by itself, decide how far Virginia should go. This brief presents the policy options and the verified figures behind them; the choice among them is a legitimate judgment that belongs to Virginians and their representatives, and it may shift as experience with recent measures accumulates.

The Numbers That Are Solid

The following figures come from JLARC’s 2024 and 2025 reports and the SCC. They are the most reliable available; the fast-growing ones (counts, capacity) should be treated as a recent snapshot rather than a current tally. (*Table designed for periodic update.*)

Measure	Figure (source)	Source
Data center buildings in Virginia	~340 (2024)	JLARC 2024
Global market rank	Largest by operational capacity (11.3 GW) (~13% global / 25% Americas capacity)	JLARC 2024
Total jobs supported (annual avg.)	74,000	JLARC 2024
of which, construction (temporary)	59,000	JLARC 2024
of which, operations (ongoing)	15,000	JLARC 2024
Jobs at a single site	up to ~1,500 building; ~50 operating	JLARC 2024
Labor income (constr./ops/total)	\$4.3B / \$1.2B / \$5.5B	JLARC 2024
GDP contribution (constr./ops/total)	\$6.4B / \$2.7B / \$9.1B	JLARC 2024
Sales-tax exemption, FY2015–24 (decade)	~\$2.7 billion	JLARC 2024/25

Return per \$1 exempted	~\$0.48 in other state revenue	JLARC 2025
Unconstrained statewide demand	could double within ~10 yrs (data centers main driver)	JLARC 2024
New large-user electricity rate class	SCC Case PUR-2025-00058 (Nov 2025)	Virginia SCC
Data-center electricity tax	\$0.011/kWh, Jul 2026–Jun 2028	2026 Va. budget

The Jobs Question, Done Honestly

Employment is the single most misused data-center statistic, so it deserves care. Both of the following are true at once, and each is used to tell an opposite story:

- **The construction figure is large and real, but temporary.** Building data centers employs many workers, up to about 1,500 at a single active site and roughly 59,000 statewide on average, in genuine, well-paid trades. But construction of a building runs about 12 to 18 months; these jobs end when a site is finished and move on.
- **The operations figure is small and real, and permanent.** A finished data center is deliberately low-labor: a typical 250,000-square-foot facility employs about 50 people, roughly half of them contract workers, so the permanent direct headcount is smaller still. That is not a scandal; it is what the technology is. Data centers were never going to be a large permanent-employment engine.

The honest summary: data centers are a major *construction* employer and a modest *operations* employer, adding about \$9.1 billion to state GDP. A claim that leans on one number while hiding the other, in either direction, is misleading even when the number it cites is accurate.

Electricity: The Real Trade-off, and What Bills Might Do

The central tension is not jobs but power. JLARC modeled two futures. If data-center growth is left *unconstrained*, statewide electricity demand could roughly double within a decade, with data centers as the main driver, requiring large amounts of new generation and transmission; a *half-unconstrained* scenario needs far less. The policy question is who pays for that build-out.

JLARC also did what this brief's standard demands: it put numbers on the household impact rather than calling it uncertain. For a typical Dominion residential customer, generation- and transmission-related costs could rise by roughly \$7 per month by 2030 and \$14 by 2040 under the half-unconstrained scenario, and by about \$23 by 2030 and \$37 by 2040 under unconstrained growth (constant dollars). The spread reflects which growth scenario occurs, not the measurement uncertainty. JLARC found data centers currently pay their full cost of service, but that this will not hold as demand grows, which is the reason for the cost-assignment measures below.²

How Virginia Is Assigning the Costs

Virginia has already taken two concrete steps to shift data-center-driven costs toward data centers, illustrating the “assign the cost to its source” approach:

- **A new large-user rate class (2025).** The SCC approved a separate class for the largest users (25 MW and above), requiring them to cover a defined minimum share of the demand they contract for (85% of contracted transmission and distribution, 60% of generation, on 14-year contracts), so infrastructure costs are not simply spread across all households.³
- **A data-center electricity tax (2026).** Effective July 1, 2026 through June 30, 2028, Virginia imposes a tax of \$0.011 per kWh on electricity consumed by data centers, with collections above \$600 million per year refunded pro rata (an estimated \$1.2 billion over the biennium), while preserving the long-standing sales-and-use-tax exemption.⁴

Myths and Facts

Common claim	What the evidence actually shows
"Data centers create tens of thousands of permanent jobs."	Misleading. ~74,000 jobs supported, but ~59,000 are temporary construction; permanent operations jobs are ~15,000, about 50 per site (half contract). (JLARC 2024)
"Data centers bring almost no jobs."	Also misleading. Construction employment and tax revenue are substantial; the industry adds ~\$9.1B to state GDP. (JLARC 2024)
"The tax break is a pure giveaway."	Contested. JLARC found ~48¢ per \$1 exempted returns in other revenue, a net cost, but far from total loss; and Virginia now also taxes data-center electricity. (JLARC 2025)
"Data centers are drying up our water."	Not supported now. JLARC found current use "sustainable"; ~83% of data centers use no more water than an average large office building, and the industry is under 0.5% of state withdrawals. (JLARC 2024)
"Your bill will (or won't) change because of data centers."	JLARC estimates a rise of roughly \$7–\$23/month by 2030 and \$14–\$37 by 2040, depending on how far growth is constrained. The range is scenario-driven, not unknowable. (JLARC 2024)

Virginia in Focus

The tax decision, past and pending

Virginia's data-center sales-tax exemption dates to 2010 and runs through June 30, 2035, though extensions to 2040 and 2050 already exist for operators meeting higher investment and employment thresholds (currently Amazon Web Services), so part of the industry is not facing a 2035 cliff. In 2026 the General Assembly chose to keep the exemption and add the electricity tax rather than repeal the exemption. They directed the Joint Subcommittee on Tax Policy to study data-center taxation further, with recommendations due December 15, 2026, to inform the 2027 session. Three options remain on the table (extend the exemption, adjust it, or let it expire), and JLARC presents all three as legitimate. Each is a way of deciding how much of the industry's cost the public should bear; letting an incentive expire is itself a form of assigning costs to their source, not a rejection of the industry. As of mid-2026, a majority of surveyed Virginia voters favored ending the exemption, but public views and the underlying figures may both shift as the new tax and rate class take effect.⁵

Local decisions and community response

Growth is increasingly shaped at the county level. Loudoun, long the industry's core, voted in March 2025 to end automatic ("by-right") approval and require a special exception, though applications filed before February 12, 2025 are grandfathered, so the change does not touch the existing pipeline. Surveys show public comfort with new local data centers has dropped sharply since 2023, making transparent, fact-based deliberation more important.⁶

The grid and the region

Virginia's data-center electricity demand is on the order of 5 gigawatts statewide (JLARC), with Northern Virginia the large majority (about 4,900 MW per JLL), and PJM (the regional grid operator) expects the Dominion zone to see the largest demand growth in its footprint through 2030. This is the pressure the rate class and the new tax are meant to manage.⁷

What to Watch

- Whether the SCC's large-user rate class and the 2026 electricity tax shift costs onto data centers as intended, and how residential bills move once both take effect.
- What the joint subcommittee recommends on the sales-tax exemption ahead of the 2027 session, and whether the debate rests on verified figures.
- Whether localities converge on industrial-only zoning and water-use disclosure, or each reinvents its own rules.

- Whether future water and grid demand stays within the “sustainable but must be managed” range JLARC described as capacity keeps growing.
- Whether public sentiment shifts as the new cost-assignment measures are felt, and whether the policy conversation follows the evidence.

Sources & Notes

1. Joint Legislative Audit and Review Commission, “Data Centers in Virginia” (Report 598 to the General Assembly), Dec. 9, 2024 commission briefing and report summary; and JLARC’s 2025 review of economic-development incentives. JLARC is the nonpartisan oversight and program-evaluation arm of the Virginia General Assembly. Source: jlarc.virginia.gov (2024 Data Centers landing page and briefing slides).
2. JLARC 2024 modeled two demand scenarios (unconstrained and half-unconstrained). Estimated increases to a typical Dominion residential customer’s generation- and transmission-related costs: about \$7 (2030) and \$14 (2040) under half-unconstrained growth, and about \$23 (2030) and \$37 (2040) under unconstrained growth, in constant dollars. Figures are from slide 43 of JLARC’s December 9, 2024 commission briefing. Source: jlarc.virginia.gov.
3. Virginia State Corporation Commission, Dominion biennial review, Case No. PUR-2025-00058, final order Nov. 25, 2025, establishing a large-user rate class (25 MW+) with minimum-take requirements (85% of contracted transmission/distribution demand, 60% of generation demand) and 14-year contracts. Source: scc.virginia.gov docket PUR-2025-00058.
4. 2026 Virginia biennial budget (HB 30), signed June 30, 2026: a data-center electricity consumption tax of \$0.011/kWh effective July 1, 2026 through June 30, 2028, with collections above \$600 million/year refunded pro rata (an estimated ~\$1.2 billion over the biennium), and the sales-and-use-tax exemption preserved. First collections are expected in fall 2026 following SCC guidelines. Sources: Holland & Knight, Williams Mullen, and BDO client alerts (2026); Virginia Department of Taxation guidance (forthcoming).
5. Exemption codified at Va. Code § 58.1-609.3(18), in effect since 2010, scheduled to expire June 30, 2035, with 2040/2050 extensions for higher-threshold operators (JLARC notes AWS). JLARC lays out extend/adjust/expire as options without recommending one. On sentiment: VCU Commonwealth Poll (Summer 2026) found ~72% of Virginia voters opposed the exemption; figures are current as of this version and may change. Sources: JLARC 2025; VCU Wilder School Commonwealth Poll.
6. Loudoun County Board of Supervisors, March 18, 2025 (7–2) vote ending by-right data-center approval in favor of special-exception review, with applications filed before Feb. 12, 2025 grandfathered. On sentiment: Washington Post–Schar School poll (2026) found comfort with a new data center in one’s own community fell from 69% (2023) to 35% (2026). Counts of buildings vs. campuses vs. facilities vary across sources; this brief uses JLARC’s “buildings” figure. Sources: McGuireWoods analysis; Washington Post–Schar School poll.
7. Northern Virginia data-center capacity is on the order of ~5 GW ($\approx 4,900$ MW), consistent with the figure cited in STEP Brief 1 (AI & Work); PJM Interconnection load forecasts (2025) project the Dominion zone as the largest source of demand growth in its footprint through 2030. Related STEP work: STEP Briefs 1 (AI & Work) and 2 (Agentic AI). Sources: PJM 2025 Long-Term Load Forecast; JLARC 2024.

About this brief • Written by Larry Medsker (University of Vermont and George Mason University) and Sumit Virmani. STEP Briefs are living documents maintained by the STEP Collaborative at George Mason University’s Center for Assurance Research and Engineering (CARE) that summarize fast-moving science and technology policy issues for Virginia policymakers and citizens. This brief compiles verified figures on Virginia’s data centers, emphasizing the construction-vs-operations jobs distinction, and separates them from contested claims. Figures are current as of the sources cited (through September 2026) and are expected to change; the data table is designed for periodic update. Next scheduled review: December 2026.

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