INDEPENDENT ANALYSIS

Built for Someone Else

Generation, Load, and the Exception in Virginia

Virginia Data Center Series — Analytical Volumes

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A NOTE ON THIS EDITION

On the title. Virginia's largest data center market contains a 132-megawatt power plant that no state commission certificated, no public hearing examined, and no docket records. In Chesterfield County, south of Richmond, a plant doing the same work drew 1,923 written comments, 83 witnesses, four days of hearing and 338 filings. Neither was built for the people who live beside it or pay for the system it strains, and neither was reviewed as though it were. The title names that, not a grievance.

On the series. *Concentrated Benefit, Dispersed Burden* is the Virginia volume that opened this series, published August 2026 at concept DOI 10.5281/zenodo.21895588. Generation was scoped out of it deliberately and deferred, so this volume opens the subject rather than revising it. Corridor geometry and Schedule 12 cost allocation stay with the burden volume; diesel measurement, the ordinance argument and the runtime-exemption analysis stay with the noise volume. What this volume takes is generation itself — the routes by which it reaches a data center, the review each attracts, and the demand record it is built against.

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ABSTRACT

Virginia has a statute governing the construction of electric generating facilities. Four kinds of generation now serve the Commonwealth's data centers. The statute reaches two of them, applies its full test to one, and does not reach the other two at all.

This report documents the four routes and the scrutiny each attracts. A utility-owned plant built under the Virginia Clean Economy Act's reliability exception drew 1,923 written comments, 83 witnesses, four days of hearing and 338 docket filings; six months after it was approved the same utility announced a second plant at three times the size, which had no docket at all when the Commission's case index was searched on 10 September 2026. A merchant plant of comparable size is reviewed under a two-prong test: in both merchant cases on the docket the Commission recites the statute with the public convenience and necessity finding elided, because the statute conditions that prong on the applicant being a rate-regulated utility. A 132-megawatt gas plant behind a data center's meter required no certificate at all and has been running since April 2024. And roughly eight thousand permitted diesel and gas generators — a fleet whose aggregate nameplate exceeds any power station in the state — never reach the State Corporation Commission under any docket number.

The report also documents what the demand actually is. Dominion Energy Virginia holds 16,913 megawatts of data center capacity under firm contract and is studying a further 30,132 megawatts at an earlier stage — 47,045 megawatts in total, of which roughly a third is committed. Eighty-eight percent of the last year's growth in that headline figure sits in the least-committed tier. In February 2026 the Federal Energy Regulatory Commission denied four American Electric Power utilities permission to sell 750 megawatts of capacity they had bought for large loads that did not arrive, observing that the problem was "simply that AEP finds itself with excess capacity … because of its own business decisions."

The evidence snapshot is built on 108 primary documents: filings, orders, statutes, permits and datasets, each listed in the data deposit's source manifest. Items dated after the snapshot cite documents read through 24 October 2026, which are not part of that deposit. Every claim carries an evidence grade; where a claim rests on secondary sources or on the author's reading, it says so, and where the record does not reach a conclusion it shows the search that stopped.

What this report argues

The reliability exception everyone argues about governed one plant for six months. A second plant at three times the size won its county Board's 3-1 approval of a land-use permit, as two outlets reported on 21 October 2026, and three other routes carry generation to Virginia's data centers without touching the exception at all. The public process attached to those three ranges from partial to none.

That is a claim about where the policy conversation is pointed, not a ranking of the four routes against each other.

What this report does not argue

It does not argue that the demand will not arrive. Section 2 sets out what is contracted, what is under study, and what the utility's own method is for forecasting the difference; the reader is left to weigh it.

It is a report about generation built on demand. Virginia's largest capacity additions are the 16,100 megawatts of solar and onshore wind and up to 5,200 megawatts of offshore wind mandated by § 56-585.5. Those travel a compulsory-build regime with its own public-interest presumption, they are not sited against a particular customer, and they are outside this report's scope except where a county's zoning of them bears on how it treats everything else.

It does not argue that any route is unlawful. Three of the four are expressly authorised by statute and the fourth is the ordinary operation of an air permit. And it does not attribute intent to any actor. Where a figure in the public record cannot be traced to a source, the report says the figure cannot be traced and declines to say more.

Introduction

Virginia's largest data center market contains a power plant that no state commission certificated, no public hearing examined, and no docket records. It has been running since April 2024. It sits in Sterling, it belongs to Vantage Data Centers, and it needed no certificate because four words in a definition written for a different century say that a company generating electricity it consumes itself is not a public utility.

In Chesterfield County, south of Richmond, the Chesterfield Energy Reliability Center drew 1,923 written comments, 83 witnesses, four days of hearing and 338 filings before the State Corporation Commission approved it. The two facilities do the same thing. One of them was examined.

That contrast is the subject of this report.

The statute and the roads around it

The Commonwealth governs the construction of generating facilities through the Utility Facilities Act and § 56-580 D of the Code, and it added a further gate in 2020 when the Virginia Clean Economy Act made most new carbon-emitting generation conditional on a finding of threatened reliability. That Section 3 documents how that gate was drafted, in a single committee markup, by people who did not say what they were doing. Section 4 documents what it then cost Dominion Energy Virginia to move a 944-megawatt gas plant through it.

Three other kinds of generation now serve the same load and do not travel that road.

Merchant generation is certificated under § 56-580 D, but not under all of it. The statute conditions its public convenience and necessity prong on the applicant being a rate-regulated utility, and in both merchant certificate cases on the docket the Commission quotes the statute with that prong elided by ellipsis, granting on reliability and public interest alone. Section 5 documents the two orders, issued twelve months apart in 2017 and 2018, and the pending Fluvanna case that will show whether the practice holds.

Behind-the-meter generation is not certificated at all. Code § 56-265.1(b)(2) excludes by name "any company generating and distributing electric energy exclusively for its own consumption," and a neighbouring subdivision excludes a central plant serving tenants on a single tract where power is unmetered and bundled into rent. Section 6 documents the exclusions, the two Commission decisions that bound them, and the test they produce, which turns out to be a question about meters.

The parallel fleet never reaches the Commission under any theory. Roughly eight thousand permitted generators sit behind Virginia's data centers under Department of Environmental Quality air permits. Section 7 documents what that fleet is as generation rather than as an emissions or noise question — and documents that in October 2025 the Department of Environmental Quality reinterpreted a planned outage as a "sudden and

reasonably unforeseeable event," widening the runtime available to units permitted as emergency equipment.

Four routes. Two of them carry no requirement of public participation at all, and the two that do apply different tests.

What the generation is being built against

What each route is being built against matters as much as how each is reviewed.

Section 2 sets out the record. The headline figure for Dominion's data center demand is a sum of three contract tiers that bind customers to very different degrees, roughly a third of it is committed, and almost all of the last year's growth landed in the least-committed tier.

None of that establishes that the load will not arrive. It establishes what kind of number the building is being justified against, and how the categories inside it have moved.

The Commission has said as much itself. Approving Chesterfield in November 2025, it wrote that "market dynamics suggest that load growth forecasts may be overstated by some degree, particularly in later years," and approved the plant anyway on the strength of near-term capacity market pressure. It also declined to attribute the plant to the industry driving the load, finding data center development "not the only factor."

And there is now one case where a utility acted on a forecast of this class and the load did not appear. Section 9 documents it. Appalachian Power and three affiliated utilities forecast 4,639 megawatts of large load additions for the 2026/2027 delivery year, revised the forecast to 3,888, bought capacity against the difference, and asked the Federal Energy Regulatory Commission for permission to sell 750 megawatts of it back into the market. The Commission refused, noting that PJM's peak load forecast for that year had itself been revised downward, and characterising the utility's difficulty as "simply that AEP finds itself with excess capacity … because of its own business decisions that led to the procurement of more capacity than it needed."

Because those utilities meet their obligation outside the capacity market, their own customers hold the position.

The shape of the argument

Section 1 establishes what was already here: a fleet nobody sited for data centers, 47 percent of it predating 2000, with 1,560 megawatts of coal carrying no retirement date in the federal survey and nothing retired since 2023. Section 2 establishes what the new building is for. Section 3 is the drafting history of the gate everything else is measured against. Sections 4 through 7 take the four routes in turn. Section 8 turns to what localities do underneath all four, including one county that zoned for a nuclear reactor nobody had proposed and defined the gated term so that behind-the-meter generation walks past the gate. Section 9 is the case where the forecast failed. Section 10 is what the arrangement costs the people who pay for it.

On sourcing

Every factual claim carries an endnote and every endnote carries an evidence grade: **[P]** for a primary document read directly, **[S]** for a secondary source, **[S^{1}]** for a single secondary source with no corroboration, and **[I]** for the author's inference. Negative findings state the search that produced them and the date it was run. Where two sources disagree and the disagreement is not resolvable from the record, both are printed and neither is chosen.

Eleven endnotes carry an **[I]** grade. Most attach to arithmetic derived from a cited table — a percentage change, a subtotal — where the underlying figures are **[P]** and the derivation is shown. Four carry an argument: the identification of two queue entries as the Expedition project, the midpoint chosen for the parallel fleet's aggregate capacity, the reading of a county ordinance's grammar, and the extension of a 2004 water case's metering test to on-site electricity. Each is marked where it appears and none is asked to do work the record cannot support.

1. The Fleet Nobody Sited for Them

The largest power plant in Virginia is a battery. It was finished in 1985, it sits in Bath County on the West Virginia line, and it exists because two nuclear reactors built in the 1970s produced electricity at a constant rate that did not match how people used it.

Bath County Pumped Storage Station is **2,862 megawatts**, roughly nine percent of the Commonwealth's operable generating capacity, and nothing about it was sited with a data center in mind.[1] Neither was the second-largest plant, North Anna, whose first unit entered service in **1978**. Nor the fourth, Surry, from **1972**.[2]

This is the fleet the load arrived on top of.

What Virginia actually has

Form EIA-860 for the 2024 survey year records **730 operable generating units in Virginia totalling 30,798 megawatts of nameplate capacity**, 29,146 megawatts net summer.[3]

JLARC's grid modelling gives Virginia's current in-state generation resources as **36,000 megawatts**, drawn from a commercial production-cost database rather than the federal survey.[4] The gap is roughly 5,200 megawatts, about seventeen percent. Some of it is vintage — EIA 2024 against JLARC's 2025 baseline — and some is method. **Both numbers belong in any account of it, each with its source named**, because every percentage built on a statewide denominator depends on which one is used, and the two are not interchangeable.

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[1] U.S. EIA Form EIA-860, 2024 vintage, Schedule 3.1 Operable. Bath County Pumped Storage Station, Bath County, first unit 1985, 2,862 MW nameplate. Dataset datasets/va_generation_fleet_inventory_v0_1.csv. **[P]**

[2] Same. North Anna first unit 1978; Surry first unit 1972. **[P]**

[3] Same, all operable rows. **[P]**

[4] JLARC, *Data Centers in Virginia*, Report 598 (RD206, 2025 series), 9 Dec. 2024, Table 3-1, "Current system capacity," sourced to E3 grid modelling with current system capacity derived from the Energy Exemplar PLEXOS database. Deposited primary/jlarc/. **[P]**

Concentration

Fifteen plants hold **18,791 megawatts, sixty-one percent of the operable fleet**.[5]

Plant	County	First unit	Capacity	Type
Bath County	Bath	1985	2,862 MW	pumped storage
North Anna	Louisa	1978	1,960 MW	nuclear
Greensville County	Greensville	2018	1,773 MW	gas combined cycle
Surry	Surry	1972	1,695 MW	nuclear
Brunswick County	Brunswick	2016	1,472 MW	gas combined cycle
Warren County	Warren	2014	1,472 MW	gas combined cycle
Doswell Energy Center	Hanover	1991	1,313 MW	gas combined cycle
Tenaska Virginia	Fluvanna	2004	1,011 MW	gas combined cycle
Ladysmith	Caroline	2001	892 MW	gas combustion turbine
Clover	Halifax	1995	848 MW	coal
Potomac Energy Center	Loudoun	2017	812 MW	gas combined cycle
Possum Point	Prince William	1968	709 MW	gas combined cycle
Remington	Fauquier	2000	706 MW	gas combustion turbine
Virginia City Hybrid	Wise	2012	668 MW	coal
Marsh Run	Fauquier	2004	597 MW	gas combustion turbine

Forty-seven percent of operable capacity sits in plants whose first unit predates 2000.[6] By decade of entry into service, 43 percent of the fleet's megawatts arrived before 2000 and 61 percent before 2010.[7]

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[5] Fleet inventory, aggregated to plant. **[P]**

[6] Same, plants grouped by earliest operating year of any operable unit. **[P]**

[7] Same, capacity by decade of unit entry into service. **[P]**

The 2010s were the heaviest decade at 7,965 megawatts, and the table shows what that was: Warren in 2014, Brunswick in 2016, Potomac Energy Center in 2017, Greensville in 2018. Four gas combined-cycle stations in five years, 5,529 megawatts. That buildout does correlate with the load. The nuclear, the pumped storage, the 1990s coal and the early merchant gas do not.

Ownership tells a different story than capacity

	Capacity	Units
Dominion	18,070 MW	91
Everything else	10,384 MW	588
Appalachian Power	1,176 MW	23
ODEC	1,168 MW	28

Dominion holds fifty-nine percent of operable capacity in ninety-one units. The non-utility column holds a third of the capacity across **588 units**, which is what a solar buildout does to a unit count: 4,691 megawatts of photovoltaic capacity spread across hundreds of small sites.[8]

Appalachian Power's 1,176 megawatts inside Virginia understates it. APCo operates a three-state shared fleet of roughly 6,922 megawatts across 46 units, and the Virginia-sited portion is a fraction of what serves its Virginia customers.[9] The same is true in the other direction for Dominion. **Mount Storm does not appear in this inventory at all**, because the inventory is scoped to plants physically in Virginia and Mount Storm sits in Grant County, West Virginia.[10]

It is worth stating what is missing. Virginia Electric and Power Company owns three coal units there — **570.2, 570.2 and 522.0 megawatts, entering service in 1965, 1966 and 1973** — for **1,662 megawatts**, plus an 18.5-megawatt starter unit.[11] That is larger than

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[8] Same, service_territory_flag. The flag is assigned by utility-name string match and answers "who owns it," not "whose territory is it in"; an independent producer inside Dominion's territory reads OTHER. Coding decision D2 in datasets/README_va_generation_fleet_inventory.md. **[P] with the coding limit stated.**

[9] Power_Infrastructure_Burden_Research_F_Berry_Hill_APCo_v0_1.md, citing APCo's Table RAJ-1. **[S[1]] — a project working file; the underlying filing has not been pulled.**

[10] Coding decision D1: the inventory is scoped to EIA State == 'VA'. Mount Storm is in Grant County, West Virginia, so it is outside the dataset's scope while remaining inside Virginia's supply. **[P]**

[11] U.S. Energy Information Administration, Form EIA-860, 2024 vintage, Schedule 3.1 Generator: plant code 3954, "Mt Storm," Grant County, W.Va. Units 1, 2 and 3 at 570.2, 570.2 and 522.0 MW nameplate, entering service 9/1965, 7/1966 and 12/1973; unit JF1 at 18.5 MW, petroleum liquids, 10/1967. Source archive eia8602024.zip, sha256

any coal station inside Virginia by a factor of two, it is sixty years old at the first unit, and it has an **uprate requested in PJM's queue for 2030**.[12] Dominion's own 2025 resource plan update carries it as "Mt Storm 1 – 3."[13]

A 1965 coal unit scheduled to gain capacity in 2030, in the supply of a state with a 2045 carbon-free mandate, on the wrong side of a border that keeps it out of every Virginia inventory.

Any statement about "Virginia's generation" has to choose between what is sited here and what serves here, and the two differ by more than a rounding error.

Nuclear, and the water it moves

Virginia's four reactors total **3,654 megawatts nameplate and 3,568 megawatts net summer**: North Anna units 1 and 2 at 979.7 megawatts each, entering service 1978 and 1980, and Surry units 1 and 2 at 847.5 megawatts each, from 1972 and 1973.[14] North Anna carries NRC subsequent licence renewal running to 2058 and 2060.[15]

The cooling question is unresolved. EIA-860 codes all four units ON, once-through without a cooling pond. For Surry that is defensible: source and discharge are both the James River, water type brackish. For North Anna it is contested. EIA records source and discharge as the same 13,000-acre impoundment, Lake Anna, and its own code set contains separate values for once-through and recirculating configurations that use a pond. Two independent readings describe the station as closed cycle, one from the plant record and one from the thermodynamics; a third treats both stations as once-through and builds a 67.5 percent withdrawal-share figure on that reading.[16]

Three sources, three positions, and the federal dataset is on the side the physics argues against. The consequence for a generation inventory is narrow but worth stating: North

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0aaae04812cd4ab87a3e346bdf93848a3cc15053fd4dc2a4cf82d2aeac95f12b, retrieved 24 Aug. 2026. **[P]**

[12] Exhibit 49, DOM Zone RRI Projects, Case No. PUR-2025-00037, filed 26 Sept. 2025: Mt. Storm, 500 kV, Grant County WV, coal, uprate, requested in service 2030. Deposited primary/pjm_via_scc/. **[P]**

[13] Dominion Energy Virginia, 2025 Update to the 2024 Integrated Resource Plan, Case No. PUR-2025-00184, filed 15 Oct. 2025, carrying the units as "Mt Storm 1 - 3." Deposited primary/scc/. **[P]**

[14] Fleet inventory, nuclear rows. **[P]**

[15] NRC subsequent licence renewal, 28 Aug. 2024. **[S[1]] — the NRC record itself has not been retrieved; nrc.gov refused automated access on 23 Aug. 2026.**

[16] datasets/README_va_generation_fleet_inventory.md correction C1, which records the disagreement between the three readings. **[P] for the disagreement; the resolution is [I] and is not asserted.**

Anna's cooling classification in EIA-860 should not be relied on without checking it against the plant record.

Nobody is making the existing fleet bigger, except in gas

Uprates are largely invisible in the federal survey, which records nameplate at installation rather than the incremental additions that follow.

EIA-860's planned-uprate fields show **two units in the entire Commonwealth**, both hydroelectric, both at Philpott Lake, 3.2 megawatts each, planned 2026.[17]

PJM's interconnection record shows something else. The DOM Zone Reliability Resource Initiative project list, entered as an exhibit in the Chesterfield certificate case, contains **sixteen uprates totalling 585 megawatts of capacity**: fourteen gas units across eight counties, one hybrid, and Mount Storm's coal unit.[18]

The two datasets measure different things — a nameplate change reported on a survey form, against an interconnection service request — and the honest finding is that **the federal survey does not see what the RTO queue shows**. EIA-860 is adequate for inventory and unreliable for anything forward-looking.

The nuclear half of the finding survives both datasets. No uprate is planned or recorded at North Anna or Surry in either source. Virginia holds 3,654 megawatts of existing carbon-free baseload and has scheduled zero additional megawatts from it, while 944 megawatts of new gas is certificated and under appeal and two larger proposals sit behind it.

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[17] Fleet inventory, planned_uprate_summer_mw and uprate_derate_during_year. **[P, negative for all other units in the 2024 vintage]**

[18] Exhibit 49, as above: 16 uprate entries totalling 585 MW of capacity and 450 MW UCAP. **[P]**

And nothing is retiring

Virginia has retired 3,234 megawatts of coal-fired capacity across twenty units.[19] The record is lumpy and it ends abruptly.

Retirement year	Capacity	Units
2013	27 MW	Covington GEN1, GEN2; Park 500 TG2
2015	1,224 MW	Chesapeake 3, ST1, ST2, ST4; Clinch River 3; Glen Lyn 5, 6
2019	815 MW	Chesterfield 3, 4; Mecklenburg GEN1, GEN2; Yorktown 1, 2
2021	115 MW	Spruance GEN1, GEN2
2023	1,053 MW	Chesterfield 5, 6

The median unit was fifty-nine years old at retirement. The youngest was twenty-seven. Nothing has retired since 2023.

What remains is **1,560 megawatts, and not one megawatt of it carries a planned retirement date in the federal survey**:[20]

Plant	County	Capacity	In service	Planned retirement
Virginia City Hybrid Energy Center	Wise	668 MW	**2012**	none
Clover 1	Halifax	424 MW	1995	none
Clover 2	Halifax	424 MW	1996	none
Covington GEN5	Alleghany	34 MW	1989	none
Covington GEN3	Alleghany	10 MW	1951	none

Virginia City Hybrid entered service in 2012, eight years before the General Assembly set a carbon-free deadline. It is fourteen years old in a fleet whose median retirement age is fifty-nine. On that arithmetic it reaches the median in 2071, twenty-six years after the deadline it is supposed to have cleared.

Clover is two units, 424 megawatts each, operated by Dominion and coded jointly owned in the federal survey, entering service in 1995 and 1996. It has no exit date. A county that

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[19] U.S. EIA Form EIA-860, 2024 vintage, Schedule 3.1, Retired and Canceled. Dataset datasets/va_generation_fleet_inventory_v0_1.csv. **[P]**

[20] Same source, Operable sheet, planned_retirement_year field. A blank field records that the utility reported no planned retirement to EIA, not that no retirement is contemplated. **[P, with the scope limit stated]**

hosts a coal station has a material interest in when that station stops running, and the federal survey says nobody has decided.

Across the border in Grant County, West Virginia, Dominion's Mount Storm coal station carries a requested in-service date of 2030 for an **uprate** — a capacity increase, filed into PJM's Reliability Resource Initiative queue and entered as an exhibit in the Chesterfield certificate case.[21] A coal plant is scheduled to get larger in the decade before the deadline. It sits outside Virginia's borders and inside Virginia's supply.

What the section establishes

Virginia's generating fleet is old, concentrated, and mostly built for reasons that had nothing to do with the load now arriving. Forty-seven percent of capacity is in plants whose first unit predates 2000. The largest single facility is a 1985 pumped-storage station built to time-shift the output of two reactors from the 1970s. The nuclear stations were sited in Louisa and Surry counties by decisions taken when the people who took them expected a different Virginia.

The gas buildout of the 2010s is the exception, and it is the part of the fleet that does track the load. Everything else was already here.

That is what "built for someone else" means before it means anything about exceptions or rate classes. The generation Virginia runs on was sited, financed and permitted by people who are mostly dead or retired, for customers who mostly no longer exist in the form the planners imagined, and the Commonwealth is now allocating its cost and its burden among people who had no part in either decision.

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[21] Exhibit 49, DOM Zone RRI Projects, Case No. PUR-2025-00037, filed 26 Sept. 2025, sponsored by Dominion witness Lisa R. Crabtree; sourced in turn to PJM Planning Committee materials of 6 May 2025. Deposited primary/pjm_via_scc/. **[P]**

2. What the Load Actually Is

Every plant in this report is built against a number. The number is 47,045 megawatts, it is usually reported as "47.2 gigawatts of contracted data center demand," and **roughly a third of it is contracted.**[22]

The three tiers, and what the utility says they mean

Dominion's own contract structure is graduated, and the utility describes the gradation plainly:

> "These contracts are broken into (i) Engineering Letters of Authorization ('ELOA'), (ii) Construction Letters of Authorization ('CLOA'), and (iii) Electric Service Agreements ('ESA'). **As a customer moves from (i) to (iii), the financial commitment and obligation by the customer increases.**"[23]

As of 31 July 2025, the split is:

> "the Company has **16,913 MW** of requested capacity under firm contracts through executed ESAs or CLOAs. The Company is **currently studying an additional 30,132 MW** of data center capacity at the ELOA stage."[24]

Sixteen thousand nine hundred and thirteen megawatts is committed. Thirty thousand one hundred and thirty-two is being studied. The first figure is a contract. The second is a letter authorising engineering work.

The ambiguity is Dominion's own, and it sits on a single page. The narrative says "currently studying." The caption on the facing chart reads "30,132 MW of Engineering Letters of Authorization (ELOA) **under contract**."[25] Take the caption, add the two figures, and the reader has 47,045 megawatts "under contract" — a number the filing's own text contradicts twelve lines away. That reading has since been made in print, including by this author.[26]

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[22] Virginia Electric and Power Company, *2025 Update to the 2024 Integrated Resource Plan*, Case No. PUR-2025-00184, filed 15 Oct. 2025, p. 18. Deposited primary/scc/PUR-2025-00184_2025-10-15_2025_IRP_Update_filing.pdf. **[P]**

[23] Same, § 2.1, text accompanying Figure 2.1.14. **[P]**

[24] Same, text accompanying Figure 2.1.15. **[P]**

[25] Same, Figure 2.1.14 caption text. **[P]** — the discrepancy between "under contract" in the caption and "currently studying" in the narrative is on the same page.

[26] Two instances located, both citing the 2025 IRP Update. The Piedmont Environmental Council, "Three Things Everyone Needs to Know About Data Centers in Virginia, Right Now," 14 Nov. 2025: "Dominion Energy says it has contracts for 47.2 GW of additional data center demand beyond what's currently needed." And this author's own

The three-year series is the finding

Capacity (MW)[27]	July 2023	July 2024	July 2025
ESAs	5,827	8,012	9,815
CLOAs	2,008	5,835	7,098
Firm capacity	**7,835**	**13,847**	**16,913**
ELOAs	8,658	7,570	**30,132**
Total contracts	**16,493**	**21,417**	**47,045**

Firm capacity grew 77 percent, then 22 percent. It is decelerating. ELOAs fell in 2024 and then **quadrupled** in 2025, from 7,570 to 30,132 megawatts.

The headline figure more than doubled in a year, and **essentially all of the increase is in the least-committed tier.** Of the 25,628 MW added to the total between 2024 and 2025, 22,562 MW — 88 percent — is Engineering Letters of Authorization.

That is not an argument that the load will not arrive. It is the observation that the growth in the number everyone cites is growth in the category the utility itself describes as under study.

The contracts do not generate the forecast

This is the sentence to hold on to, and it is a footnote in the filing:

> "**While the Company does not forecast data center load by contract**, the Data Center Load Forecast is validated by the significant number of executed contracts with customers."[28]

The 47,045 MW is not the forecast. It is a contract inventory offered as corroboration of a forecast produced by other means.

Turner_Virginia_Statewide_Report_v5_3.md and companion works, which carried the same construction citing PEC. **[P] for both texts as published.** Neither is offered as a criticism: the point is that the caption misleads people reading the document carefully. A search for further instances, run 24 Aug. 2026, returned no news outlet, legislative document or other report carrying the compressed figure. **[P, negative — bounded by that search.]**

[27] Same, Figure 2.1.15, "Data Center Contract Growth," contract values at end of July 2023, 2024 and 2025. **[P]** The percentage changes and the 88 percent share of year-over-year growth are arithmetic on those figures and are **[I] — derived, not quoted.**

[28] Same, footnote 11. **[P]**

How the forecast is actually produced

Dominion published the method, and it should be credited for that before it is examined. Appendix 2A of the 2024 IRP sets out the process in detail.[29]

The Company identified its **eight largest or fastest-growing data center customers** and combined all others into a ninth segment. For each of the nine it ran a linear regression to an initial energy forecast, then built **three demand models per segment — twenty-seven in all.** Then comes the step that matters:

> "the Company **applied customer intelligence to select the appropriate demand model** for each customer segment. If none of the three models aligned with customer intelligence as to future business growth, then an **adjusted growth curve** was used (e.g., a flat growth curve)."[30]

That produces the **"high"** forecast. Separately, six statistical models built from historical metered data are averaged to produce the **"low"** forecast. And then:

> "the Company took an **average** of the by-customer segment ('high') and aggregate ('low') forecasts to derive the **'medium' scenario, which became the Company's official submission to PJM.**"[31]

So the number is a midpoint between a judgment-selected forecast and a trend extrapolation. Dominion calls the approach conservative on the ground that the customer-segment forecast is used as the high case rather than the central one, which is a fair characterisation of the construction.

The audit limit is precise and worth stating without heat. Twenty-seven models are narrowed to nine by "customer intelligence" — non-public information from customer relationships, which the Company describes as what "sets the Company's forecast apart from other forecasting models." That step is the pivot of the whole exercise and **it is not reproducible from public information.** Nobody outside the utility can test which of the twenty-seven models was chosen, or why, or what a different selection would have produced.

The forecast's path through PJM

> "The Company **provided a data center load forecast to PJM** in October 2024, which then reviewed and verified the information provided before **incorporating**

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[29] Virginia Electric and Power Company, *2024 Integrated Resource Plan*, Case No. PUR-2024-00184, filed 15 Oct. 2024, **Appendix 2A: Load Forecast Methodologies**, §§ I and III. Deposited primary/scc/PUR-2024-00184_2024-10-15_2024_IRP_part1.pdf. **[P]** Retrieved 24 Aug. 2026.

[30] Same, Appendix 2A § III, "Data Center Load Forecast Methodology." **[P]**

[31] Same. **[P]** The nine segments comprise the eight largest or fastest-growing data center customers individually plus all others combined.

> **it into PJM's own forecast** published January 24, 2025, **which is the version used for this 2025 IRP Update.**"[32]

PJM "**independently analyzed** this information, incorporated the information into its annual forecast **at its discretion**," and the figure Dominion then uses is PJM's own derived output rather than its original submission: "the data center forecast the Company incorporated into the PJM Derived Load Forecast **is derived by PJM**."[33] NOVEC and other cooperatives submitted separately, and Dominion's submission excluded NOVEC's growth. Dominion's conversion of the zone forecast down to its own LSE is documented step by step.

This is ordinary RTO practice and there is no concealment in it. The narrow point that survives: when an order or an article cites "PJM's forecast for the DOM Zone" as **independent corroboration** of Dominion's projections, the data center component of that forecast began as a Dominion submission, which PJM then analysed and adjusted. The Commission's order in the CERC case cites PJM's DOM Zone forecasts in exactly that supporting posture.[34] Say the chain once and move on.

The regulator said so itself

The State Corporation Commission approved a 944 MW gas plant costing $1.47 billion, and wrote this into the order approving it:

> "While forecasts are no guarantee of future outcomes — and **market dynamics suggest that load growth forecasts may be overstated by some degree, particularly in later years** — recent occurrences in the regional capacity market clearly indicate that there are very real and significant pressures in meeting the near- and medium-term anticipated loads."[35]

The same order declines to attribute the plant to the industry driving the load. Section 4 sets out what it put in data center growth's place.[36]

A forecast of this class has already failed once

Appalachian Power and three affiliated utilities revised a large-load forecast for the 2026/2027 delivery year down by **751 megawatts**, having already bought capacity against

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[32] *2025 Update to the 2024 Integrated Resource Plan*, § 2.1. **[P]**

[33] *2024 Integrated Resource Plan* (note 29), Appendix 2A § I. **[P]**

[34] Final Order, Case No. PUR-2025-00037, 25 Nov. 2025, at the load-growth discussion citing PJM's DOM Zone forecasts and a 2.9 percent annual LSE growth rate over fifteen years. Deposited primary/scc/PUR-2025-00037_2025-11-25_CERC_FinalOrder_20251125.pdf. **[P]**

[35] Same order. **[P]**

[36] Same order. **[P]**

the higher number, and asked the Federal Energy Regulatory Commission for permission to sell the excess back into the market. The Commission refused.[37] Section 9 takes that case in full, including what FERC said about it and what the refusal costs.

It belongs here for one reason: it is the only instance on the record of a Virginia utility acting on a data center forecast of this kind and the load not arriving.

The load that does arrive does not bend

One further fact belongs here, because it closes the obvious objection that flexible load could absorb the uncertainty:

> "To date, data centers have been hesitant to participate in demand response or interruptible service participation programs; **the Company has seen no evidence that data center customers are willing to reduce load in response to high price signals.**"[38]

Dominion attributes the position to PJM's own reading — that "the risk of interruptions, especially for customer-facing processes, far exceeds any economic value of participation."

So the demand is uncertain in aggregate and inflexible in operation. Generation is being committed against the first property; the second removes the cheapest hedge against getting it wrong.

The arithmetic nobody expected

The Joint Legislative Audit and Review Commission modelled the grid Virginia would need by 2040 and produced a number that cuts against the intuition the VCEA was sold on.

Under unconstrained demand growth **without** the VCEA, Virginia needs a net increase of 54,100 megawatts of in-state generating capacity by 2040. **With** the VCEA, it needs 56,300 megawatts.[39] Compliance costs 2,200 megawatts more construction, not less, because a carbon-free portfolio built largely from resources that run at a quarter of nameplate requires more nameplate.

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[37] Monitoring Analytics, LLC, *Protest, Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM*, FERC Docket No. ER26-444-000, filed 26 Nov. 2025, at 4–5. Deposited primary/ferc/ER26-444_2025-11-26_IMM_Comments.pdf. **[P]**

[38] *2025 Update to the 2024 Integrated Resource Plan*, § 2.1, and the PJM pre-filed comments it cites. **[P] for Dominion's statement. [S] for PJM's position**, which is quoted at second hand through Dominion's filing; the underlying PJM comments to the FERC technical conference have not been retrieved.

[39] JLARC, *Data Centers in Virginia*, Report 598 (RD206, 2025 series), 9 Dec. 2024, Table 3-1. Deposited primary/jlarc/. Cite by both identifiers: RD206 of the **2024** series is an unrelated Medicaid report. **[P]**

Data centers account for 35,600 megawatts of the first figure and 34,300 of the second — 66 and 61 percent. JLARC's own note guards the reading: the model predicts new capacity would be built without data center growth anyway, as the grid shifts toward cheaper renewables and away from imports.[40] The share is a share, not a but-for total.

The transmission row carries no such qualification. Net increase in interzonal capacity between the Dominion zone and its neighbours: 3,500 megawatts under unconstrained demand and 3,100 under half-unconstrained demand. Data center share: **3,500 and 3,100 megawatts** respectively, the whole increase in all four modelled scenarios.[41] Every megawatt of it. Those figures cover interzonal transfer only and explicitly excludes additions within the Dominion zone, which is a different and larger subject.

What this section establishes for the rest of this report

1. The circulating demand figure is **36 percent contracted**, and the source of the confusion sits in the filing itself.
2. Growth in that figure is **concentrated in the least-committed tier**, at 88 percent of the year-over-year increase.
3. The forecast is **not built from the contracts**; the contracts are offered as validation.
4. The method is **published**, and its pivot — the selection among twenty-seven demand models by "customer intelligence" — is **not reproducible from public information.** The submission is the midpoint between that and a trend extrapolation.
5. The forecast **originates with the utility** and returns to it as PJM's, after PJM's independent analysis and at PJM's discretion.
6. **The Commission approved generation while recording that the forecast may be overstated.**
7. **One utility's forecast of this class failed by 751 MW**, and the regulator would not let it unwind the position.
8. The load **will not reduce on price.**
9. Compliance with the VCEA **raises** the total capacity Virginia must build by 2040 rather than lowering it, and the transmission expansion the model produces is attributed to data centers in full.

The route sections that follow describe the four regimes under which generation is committed against that record, and the scrutiny each applies.

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[40] Same, Table 3-1 note. **[P]**

[41] Same, transmission row, all four scenarios. The note limits the row to interzonal capacity between the Dominion zone and neighbouring zones and excludes additions within the zone. **[P]**

3. The Exception, and How It Was Drafted

Virginia's decarbonisation statute and the escape hatch from it were written into the same paragraph, in one committee markup, on the afternoon of 6 February 2020. The paragraph has never been amended. Six years later it has produced one approved gas plant of 944 megawatts, a second utility plant of 3,000 megawatts announced in May 2026 and, on the Commission's case index as searched on 10 September 2026, not yet filed, two merchant proposals larger than the first that do not need it, and 1,560 megawatts of coal with no retirement date on file.

The gate as introduced

House Bill 1526 arrived on 9 January 2020 with a flat prohibition. In the version carrying drafting number 20105072D, the operative sentence read:

> "Notwithstanding any other provision of law, with the exception of facilities declared in the public interest pursuant to Chapter 296 of the Acts of Assembly of 2018 and facilities utilizing energy derived from offshore wind, **no utility may petition the Commission for construction of any new generating resources** unless that utility has already met the energy savings goals identified in § 56-596.2 and the supply-side resources needs cannot be more affordably met with demand-side or energy storage resources."[42]

Read what that does. It bars the filing, not the approval. It reaches *any* new generating resource, without regard to ownership or fuel. It carves out exactly two exceptions, both named. And it puts the burden on the utility to show that alternatives cannot more affordably meet the need.

A utility facing that sentence in January 2020 had one route to a new gas plant: meet the energy savings goals first.

What § 56-596.2 actually requires

Those goals are a percentage of a fixed historical number. Code § 56-596.2 B sets total annual energy savings for a Phase II utility — Dominion — at 1.25 percent of 2019 jurisdictional retail sales in calendar 2022, rising to **5.0 percent of 2019 sales by calendar 2025**.[43] A Phase I utility, Appalachian Power, faces 2.0 percent on the same 2019 base.

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[42] HB 1526, as introduced, LD 20105072D, 9 Jan. 2020. Retrieved from Virginia LIS, deposited primary/legislative/VA2020_HB1526.pdf. **[P]**

[43] Va. Code § 56-596.2 B 2 (Phase II); § 56-596.2 B 1 sets the Phase I schedule at 0.5 percent rising to 2.0 percent on the same 2019 base. Deposited primary/statute/st_56-596.2.txt. **[P]**

The denominator is the point. Savings are measured against what Virginia sold in 2019, before the load arrived. Whatever happens to demand afterward, the target stays pinned to a year in which the Commonwealth's largest customers had not yet announced most of the campuses now under construction. For 2026 through 2028 the Commission must establish new targets after notice and hearing, still as a percentage of 2019 sales.[44]

Two paragraphs after the gate, the same subdivision defines who can be excused from helping meet it:

> "As used in this subdivision, 'large general service customer' means a customer that has a verifiable history of having used more than one megawatt of demand from a single site."[45]

Those customers "shall be exempt from requirements that they participate in energy efficiency programs" on a showing that they have implemented their own at their own expense. One megawatt at a single site. Every data center in Virginia clears that threshold, and clears it before the GS-5 rate class — which begins at 25 megawatts — even notices them.[46]

So the condition on new fossil generation is a savings target measured against 2019, and the customers most able to move that target are the ones the statute lets out of the programs designed to move it. Both provisions sit in Code § 56-585.1 A 5 c, three paragraphs apart.

6 February 2020

The House Committee on Labor and Commerce reported a substitute that afternoon, 13-Y 9-N, carrying drafting number 20107849D-H1. The paragraph came back rewritten:

> "Notwithstanding any other provision of law, **unless the Commission finds in its discretion and after consideration of all in-state and regional transmission entity resources that there is a threat to the reliability or security of electric service to the utility's customers**, the Commission shall not approve construction of any new **utility-owned**, generating facilities **that emit carbon dioxide as a byproduct of combusting fuel** to generate electricity unless the utility has already met the energy savings goals identified in § 56-596.2 and **the Commission finds that supply-side resources are more cost-effective** than demand-side or energy storage resources."[47]

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[44] § 56-596.2 B 3. **[P]**

[45] Va. Code § 56-585.1 A 5 c, deposited primary/statute/st_56-585.1.txt. **[P]**

[46] GS-5 rate class terms from the SCC Final Order in Case No. PUR-2025-00058, 25 Nov. 2025, deposited primary/scc/. The terms are set out in section 10. **[P]**

[47] HB 1526, House Labor and Commerce substitute, LD 20107849D-H1, 6 Feb. 2020. Emphasis added. Deposited primary/legislative/VA2020_HB1526H1.pdf. **[P]**

Four changes, one markup.

The bar moved from the applicant to the regulator. “No utility may petition” became “the Commission shall not approve.” A rule about what a company may file became a standard for what a commission may grant. The company can always ask.

The scope narrowed twice. “Any new generating resources” became “any new utility-owned generating facilities that emit carbon dioxide.” Two qualifiers appeared where there had been none, and the first of them is the one that matters most in 2026.

The reliability exception was prefixed, handing the Commission a discretionary override exercisable on its own finding.

The burden inverted. The introduced text required that supply-side needs “cannot be more affordably met” by alternatives — a showing against the proposal. The substitute requires the Commission to find that supply-side resources “are more cost-effective” — a finding in its favour.

The language then stopped moving. It is byte-identical through the Senate substitute, the conference substitute of 5 March, the enrolled bill and Chapter 1193, apart from “byproduct” gaining a hyphen and a stray comma disappearing in codification.[48] Across every act amending § 56-585.1 from 2021 through 2023, the paragraph has not been touched.

The silence

No published document produced during the bill’s passage explains the insertion.

Ten fiscal impact statements were filed on HB 1526 and its Senate companion SB 851, five of them by the State Corporation Commission itself. **None contains the string “reliab” in any form.**[49] The Commission’s analysis addresses percentage of income payment program administration, offshore wind cost allocation, and a need for two additional utility analysts. The body about to be handed a discretionary override never priced it.

Three Division of Legislative Services summaries were published: as introduced, as passed the House, as passed. Across 26,364 characters, **zero occurrences of “reliab.”**[50] The summary is what members read.

The committee proceedings are archived with a timestamped caption track. HB 1526 was taken up at 17:40:29 and ran to 18:21:27, forty-one minutes and 5,509 words of presentation, questions and vote. In that segment there are **no instances of any string**

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[48] Comparison run against 2020 Acts of Assembly ch. 1193, deposited primary/legislative/VA2020_CHAP1193.pdf. **[P]**

[49] Ten fiscal impact statements on HB 1526 and SB 851, all deposited under primary/legislative/VA2020_FIS_*.pdf, searched individually 23 Aug. 2026. **[P, negative — search of all ten retrieved documents]**

[50] Three DLS summaries, 26,364 characters, searched 23 Aug. 2026. **[P, negative]**

beginning “reli,” no instances of “threat,” no instance of “utility-owned,” and no mention of carbon dioxide or § 56-596.2.[51] The word “generating” appears once, describing the schedule on which utilities must build solar and onshore wind.

The patron characterized the substitute for the committee: “The substitute is — is true to the original in its scope.”[52] Set against the two versions, that is not accurate as to this paragraph. The scope narrowed on ownership and on fuel, and widened on who may escape.

The more useful sentence came a few seconds later. “I’ll tell you, hundreds of hours of negotiations have gone into the bill.”[53] That is where the drafting happened. The committee was ratifying a text negotiated elsewhere, and Virginia keeps no record of elsewhere: no committee minutes, no member statements, and Legislative Services drafting files are not public records.

One gap remains and should be stated. Subcommittee #3 heard HB 1526 on 4 February and recommended reporting 5-Y 4-N. Four Labor and Commerce sessions are captioned for that date, totalling 43,926 words. **HB 1526 appears in none of them.**[54] That session is not in the reachable archive.

The margins were thin throughout. Subcommittee 5-4. Full committee 13-9. House floor 52-47. Senate passage of SB 851, 21-19. The conference report carried the House 53-45 and the Senate 22-18.[55] One vote in subcommittee moved the substitute that created both instruments.

Three escapes, one afternoon

The reliability exception was not alone in that substitute.

Enactment Clause 9 entered the same day, numbered 10 at the time: “That nothing in this act shall require the State Corporation Commission to take any action that, in its discretion and after consideration of all in-state and regional transmission entity resources, threatens

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[51] Virginia General Assembly SLIQ Harmony, House Labor and Commerce, 6 Feb. 2020, event 13119. Closed-caption archive, 5,488 cues. HB 1526 segment 17:40:29–18:21:27. Transcript deposited primary/legislative/transcripts/HouseLaborCommerce_2020-02-06_event13119_transcript.txt. Garbled-variant search performed; the track renders “competitive suppliers” as “COM PET IRPLIERS,” so exact-string absence was tested against stem patterns rather than full words. **[P, negative]**

[52] Same source, 17:41:05. Caption text is machine-derived; quoted as published. **[P]**

[53] Same source, 17:41:25. **[P]**

[54] Events 13095, 13099, 13102, 13103, 4 Feb. 2020, 43,926 words combined. **[P, negative — bounded by the captioned archive; the subcommittee session may exist unarchived]**

[55] Vote records from Virginia LIS bill history, HB 1526 and SB 851. **[P]**

the reliability or security of electric service to the utility's customers."[56] The conference substitute of 5 March renumbered it and extended it, so that the act no longer requires "the utilities or the State Corporation Commission" to take such action — while leaving the discretion with the Commission. A regulated company may now decline what the act requires, on a finding made by somebody else.

Code § 56-585.5 B 3 entered in the same substitute: a Phase I or Phase II utility "may petition the Commission for relief from the requirements of this subsection on the basis that the requirement would threaten the reliability or security of electric service to customers."[57] That is the mechanism by which a scheduled retirement becomes an unscheduled one, and it shares its author, its date and its test with the other two.

An approval override, an act-wide excuse, and a retirement deferral. Three doors, one test, one afternoon.

What the deferral is

The word does double duty and both meanings are load-bearing.

Generation was deferred in the ordinary sense: retirements that were scheduled did not happen, and the plants that were supposed to close are still running with no date attached. That is the § 56-585.5 B 3 petition working as designed.

And the decision was deferred in the constitutional sense. A statute that appeared to settle the question of new fossil generation instead relocated it, from a legislative prohibition to a regulatory finding, on a standard the Commission writes for itself, exercisable each time it is asked. The General Assembly voted 52-47 for a carbon-free grid and handed the exception to a body that never told it the exception was there.

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[56] Enactment clause 10 as reported 6 Feb. 2020; renumbered 9 and amended at conference 5 Mar. 2020. **[P]**

[57] Va. Code § 56-585.5 B 3, deposited primary/statute/st_56-585.5.txt. **[P]**

4. Route One — The Reliability Exception

Nobody tried the door until the end of 2025. On 25 November of that year the State Corporation Commission approved the first new fossil-fuel generating station certificated in Virginia since the Clean Economy Act, and did it on the same day it created the rate class for the customers whose growth it cited as a driver. Three weeks later the Commission granted reconsideration. Eight weeks after that it reaffirmed itself. Five days later the intervenors appealed. Less than three months after that, the same company announced a second plant at three times the size.

Seven months before the Commission's order, in Southside Virginia, the Pittsylvania County Board of Supervisors refused a gas plant nearly four times the size, 6-1, on grounds that included expected emissions. That refusal is the second half of this section, and the two records answer different questions: one shows what the exception permits, the other shows what a county does when the exception is not its decision to make.

The plant

The Chesterfield Energy Reliability Center is an approximately 944 megawatt nominal simple-cycle station comprising four GE Vernova 7F combustion turbines, to be built inside the footprint of the retired Chesterfield Unit 6.[58] Total projected cost, as estimated by Dominion: **$1.47 billion**.[59] Commercial operation is planned for **1 June 2029**.[60]

The site chronology matters more than the plant does. Chesterfield Power Station retired units 3 and 4 in 2019 and units 5 and 6 in 2023, removing 1,353 megawatts of coal from the site in two steps.[61] Unit 6 alone was 694 megawatts. CERC is 1.36 times the unit whose footprint it occupies, and the site retains 446 megawatts of combined-cycle gas from 1990 and 1992 that never left.

New generation lands where old generation already sat. Section 5 shows the same thing in Fluvanna, where the developer proposing 1,540 megawatts already owns the 1,011 megawatts next door.

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[58] SCC Final Order, Case No. PUR-2025-00037, 25 Nov. 2025, at 1 and ¶ describing the Application. The order renders the manufacturer as "Vemova" at one point, an OCR artifact of the deposited copy; the company is GE Vernova. Deposited primary/scc/PUR-2025-00037_2025-11-25_CERC_FinalOrder_20251125.pdf. **[P]**

[59] Same, "the total projected cost of the Project is $1.47 billion." **[P]**

[60] Same, "operational by June 1, 2029." **[P]**

[61] U.S. EIA Form EIA-860, 2024 vintage, Schedule 3.1. Units 3 (112 MW, 1952) and 4 (188 MW, 1960) retired 2019; units 5 (359 MW, 1964) and 6 (694 MW, 1969) retired 2023. Operable combined cycle CT7, CT8, CW7, CW8 total 446 MW. Dataset datasets/va_generation_fleet_inventory_v0_1.csv. **[P]**

The finding the Commission had to make

Approval required clearing Code § 56-585.1 A 5 c, and the Commission was explicit about how narrow the opening is:

> "We recognize the significant statutory hurdles that must be cleared before approval of construction of a new fossil fuel generation facility. In general, a utility must first meet the statutory energy savings targets established pursuant to Code § 56-596.2 before petitioning for the construction of such a facility. Only if there is a threat to reliability or security may a utility avoid this requirement. **No case participant disputes that the Company has not met the energy savings goals prescribed by § 56-596.2 of the Code.**"[62]

Read that sequence in order. The ordinary gate is energy efficiency. Dominion has not passed it. Nobody argued otherwise. The plant proceeds because the Commission found a reliability threat, and for no other reason available in the statute.

The evidentiary basis for that finding sits in Dominion's own exhibit. The DOM zone runs a capacity deficit that widens from **0.9 gigawatts in 2026 to 5.7 gigawatts in 2030**, sourced to three successive PJM auction parameter sets and the RTO's queue as of mid-2024.[63] A deficit that grows more than sixfold in five years is a serviceable definition of imminent.

What the Commission said that complicates the story

Three passages in the order cut against a clean data-center-causation account, and this report is stronger for engaging them.

On causation. "Data center development in Virginia, while not an insignificant contributing factor, **is not the only factor** underlying the need for the CERC Project."[64] The order names Virginia-specific load growth, the integration of renewables developed under the VCEA itself, and PJM-wide supply and demand dynamics as primary drivers. Set that against the Independent Market Monitor, writing three and a half months later: "Data center load growth is **the primary reason** for recent and expected capacity market conditions."[65] Both are on the record. Neither is obviously wrong. The Commission was allocating causation for one plant; the Monitor was allocating it for a regional capacity market. Both readings stand; the record does not choose between them.

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[62] Final Order, "Need" section. Emphasis added. **[P]**

[63] Exhibit 50, DOM Zone Capacity Overview, filed 26 Sept. 2025, sponsored by Dominion witness Lisa R. Crabtree. Net position by year: −0.9, −1.9, −3.7, −4.3, −5.7 GW for 2026 through 2030. Deposited primary/pjm_via_scc/. **[P]**

[64] Final Order. Emphasis added. **[P]**

[65] Monitoring Analytics, *2025 Annual State of the Market Report for PJM*, Vol. 1, published 12 Mar. 2026. Deposited primary/imm/. **[P]**

On the RFP. Having granted the certificate, the Commission put the company on notice for next time: "the Commission reminds the Company of its burden in any future CPCN filing triggering Code § 56-585.1 A 5 to demonstrate sufficiently a 'threat to the reliability or security of electric service to the utility's customers.' To meet this future burden, the Company must ensure an open and transparent RFP process and should engage in a robust analysis that goes beyond relying on its most-recent IRP."[66]

The intervenors argued the RFP was foreordained. They did not win the case. They won a warning about the next one, issued by the body that just ruled against them, in the order ruling against them.

On who pays and who lives there. The Commission received 1,923 written public comments, a majority opposed, and heard 83 live public witnesses, roughly 75 percent opposed.[67] It then wrote this:

> "We also recognize that while the reliability and capacity benefits of CERC will extend to PJM, **the RTO neither needs to pay for it nor live near it.**"[68]

That is the concentrated-benefit, dispersed-burden pattern, stated by the regulator granting the permit, in one sentence, and then set aside as insufficient to change the outcome.

What it puts on a bill, for now

The Final Order states the consumer effect plainly. Rider CERC, sought under Code § 56-585.1 A 6 for the rate year running through 31 December 2026, carries a revenue requirement of **$35,739,807** and "would increase the monthly bill of a typical residential customer using 1,000 kilowatt-hours of electricity by **$0.60**."[69]

A revised tariff sheet filed 17 February 2026 moved the effective date to 1 March 2026 while carrying the same $35,739,807 revenue requirement, spreading it over ten months rather than twelve.[70]

That is the construction-period figure, and it is the small one. Section 10 takes the next rate year, the arithmetic that does not reconcile between the two, and what happens when a plant projected at $1.47 billion actually enters service.

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[66] Final Order. **[P]**

[67] Same. **[P]**

[68] Same. Emphasis added. **[P]**

[69] Same, ¶¶ describing the Application and Rider CERC. **[P]**

[70] SCC docket PUR-2025-00037, filing of 17 Feb. 2026: "Revised Rider CERC tariff sheet and rate design workpapers supporting an approved revenue requirement of $35,739,807. Rider CERC tariff sheet will become effective for usage on and after 3/1/26." **[P]**

The litigation, and a procedural detail worth stating precisely

Date	Filing
3 March 2025	Application filed
25 November 2025	Final Order
15 December 2025	Community Intervenors — Petition for Reconsideration
16 December 2025	Order **Granting** Reconsideration
29 December 2025	Order Scheduling Reply
16 January 2026	Dominion — Response to Petition
12 February 2026	**Order on Reconsideration**
17 February 2026	Appalachian Voices, Mothers Out Front, NAACP Chesterfield — Notice of Appeal

The Commission **granted** reconsideration on 16 December before ruling against the petitioners on 12 February.[71] That is not a denial and should not be described as one. The docket status now reads "Under Appeal," with disposition "Approved" as of 12 February 2026.[72]

A separate track runs through the Department of Environmental Quality, which issued the air permit on 19 December 2025; that permit is under appeal in Richmond Circuit Court.[73] The draft permit and DEQ's engineering analysis entered the certificate record as Exhibits 57 and 58 and are available without a records request, which is worth knowing before anyone concludes that DEQ permit-level detail is unobtainable.[74]

The second plant

On 7 May 2026 Dominion announced the **Cumberland Energy Center**: a combined-cycle natural gas station of **3,000 megawatts** on roughly **900 acres** off Duncan Store Road in northern Cumberland County, on the James River. Construction is stated for 2029 and service for 2033 or 2034, at a cost the company describes as multi-billion and above the $1.47 billion carried by CERC.[75]

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[71] SCC document index for PUR-2025-00037, deposited indexes/scc_docket_document_index_v0_1.csv. **[P]**

[72] SCC case detail, PUR-2025-00037, retrieved 23 Aug. 2026. **[P]**

[73] Chesterfield_v3_0_source.md, Part Six. **[S] — the companion case study's account; the Circuit Court record has not been pulled.**

[74] Exhibits 57 (DEQ Draft Air Permit) and 58 (DEQ Engineering Analysis), filed 26 Sept. 2025 in PUR-2025-00037. Indexed, not yet retrieved. **[P] for existence and description.**

[75] Charles Paullin, "Dominion announces plans for new 3-gigawatt gas plant in Cumberland County," *Virginia Mercury*, 7 May 2026. Capacity, combined-cycle configuration, the roughly

It is 3.2 times CERC. It is also 1.7 times Greensville County Power Station, which at 1,773 megawatts is the largest gas station in the Commonwealth, and this volume's own fleet inventory is where that comparison comes from.[76]

It has no docket. A search of the Commission's full case index on 10 September 2026 returned no application for a generating facility in Cumberland County. The only generation certificates established in 2026 are Expedition's, which section 5 takes up, and one battery storage case.[77] What exists is a local land-use proceeding. The Cumberland County Planning Commission recommended approval of a conditional use permit **5-1 on 31 August 2026**. WHRO and 12 On Your Side reported on 21 October 2026 that the Board of Supervisors had approved the permit 3-1 on Tuesday; the county's meeting index lists a Board public hearing on Tuesday 20 October 2026. 12 On Your Side reports that the plant still needs a Department of Environmental Quality air permit and State Corporation Commission approval. The Board's minutes, roll call and permit conditions were not read for this report.[78]

900-acre Duncan Store Road site, the 2029 construction and 2033-2034 service dates, and the multi-billion cost characterisation are all the company's, as reported. **[S[1]] — no primary document naming this plant has been retrieved, and none exists in the deposited archive.**

[76] Derived from datasets/va_generation_fleet_inventory_v0_1.csv, deposited with this volume. Nameplate capacity summed by plant across natural-gas technologies gives Greensville County Power Station 1,773.3 MW, ahead of Brunswick County and Warren County at 1,472.2 MW each; no larger gas station appears in the inventory in any status group, proposed included. 3,000 ÷ 1,773.3 = 1.69. 3,000 ÷ 944 = 3.18. **[I]** — arithmetic on **[P]** figures, derivation shown.

[77] Search of the State Corporation Commission case index (docketsearchapi/breeze/cases_estabdate), run 10 Sept. 2026: 33,567 cases returned, 146 of them PUR or PUE cases established in 2026, and none for a generating facility in Cumberland County. The 2026 generation certificates are PUR-2026-00102 (Expedition Generating) and PUR-2026-00001 (Laurel Creek Energy Storage). **[P, negative.]**

[78] Cumberland County Planning Commission, recommendation on the conditional use permit application, 31 Aug. 2026, reported vote 5-1; *VPM News*, 3 Sept. 2026. The permit application, the staff report and the minutes have **not been retrieved**; the Cumberland County record is the upgrade path. **[S[1]] for the vote and the procedural posture.** The Board of Supervisors: WHRO, "Cumberland supervisors approve Dominion gas plant proposal," 21 Oct. 2026, and 12 On Your Side, "Cumberland supervisors approve massive natural gas power plant," 21 Oct. 2026, each reporting a 3-1 vote on Tuesday; neither names the supervisor who voted against. 12 On Your Side reports that the project still needs a DEQ air permit and State Corporation Commission approval; WHRO quotes the county administrator that, if the Board approved the permit, Dominion would "move forward with applying for and obtaining the necessary state permits." Cumberland County AgendaCenter index, read 24 Oct. 2026: a Board of Supervisors Public Hearing listed for 20 Oct. 2026, with no minutes posted as of that read. **[S] for the vote; [P] for the meeting**

Three things follow, and the first changes this report's weighting.

Dominion is rate-regulated, so the exception applies. Code § 56-585.1 A 5 c reaches petitions by a utility subject to it, which is why it governed CERC and why section 5 shows it failing to reach two merchant applicants of greater size. Cumberland is the company's own plant. No petition had been filed when the case index was searched on 10 September 2026; when one is filed it will be filed under the paragraph drafted on the afternoon of 6 February 2020, and the Commission will have to find an imminent threat to reliability a second time, for 3,000 megawatts rather than 944.

The first approval is being offered as the reason for the second. In announcing the plant the company pointed to the Commission's approval of the Chesterfield station as evidence of the reliability need ahead.[79] That is an argument from precedent rather than from a record, and on the 10 September 2026 case-index search it was being made before any Commission record for Cumberland existed. Whether the Commission accepts it is a question this report cannot answer.

The sequence is the finding. The exception sat unused for nearly six years. It carried one plant in November 2025. Six months later the same applicant proposed three times that capacity through it, citing the first approval. A door used once is a door. A door used twice inside six months at triple the volume is a route.

The evidence in this subsection is **secondary throughout**, and this report flags that rather than smoothing it. No primary document in the deposited archive names the Cumberland Energy Center, and none could: the announcement post-dates the most recent Dominion exhibit in the archive by seven months, and no filing had been made when the Commission's case index was searched on 10 September 2026.[80] The upgrade path is the Cumberland County conditional use permit file, which is public and was not retrieved for this report, and the Commission docket, which had not opened as of the 10 September 2026 search.

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listing only.

[79] *Virginia Mercury*, 7 May 2026, as above, reporting the company's reliance on the Commission's approval of the Chesterfield Energy Reliability Center. **[S¹]** The characterisation is the reporter's summary of the company's position and not a filed statement.

[80] String search of the deposited primary archive for "Cumberland," run 10 Sept. 2026: the only hits are a Cumberland CT unit outside Virginia in the PJM Monitor's unit list, the Cumberland, MD-WV statistical area in PJM's load forecast, and Cumberland County as an adjacent locality in Expedition's environmental tables. The DOM Zone Reliability Resource Initiative project list filed 26 Sept. 2025 (Exhibit 49, PUR-2025-00037) carries no Cumberland entry, which is expected: the announcement post-dates it. **[P, negative.]**

The case that was refused

Balico, LLC applied to Pittsylvania County to rezone fourteen parcels totalling 763.16 acres for a campus that the application's traffic analysis describes as 12 data center buildings on 746 acres, alongside a gas plant that opponents at the hearing described as **3,500 megawatts** behind eight 187-foot stacks. A speaker at the Board's March 2025 meeting spoke of "the possibility of 84 data centers."[81]

Case **R-25-001**. The Board of Supervisors first denied a withdrawal request 5-2, then denied the application **6-1** on **15 April 2025**. The motion cited layout, structure height and profile, **expected emissions**, limited job benefit, and lack of clarity in the proffers.[82]

Three things follow.

It was not unanimous, and the dissents are not the pair one would guess. The withdrawal denial went 5-2 with Dudley and Whittle against; on the merits, over two hours later, Whittle voted to deny. **Only Dudley dissented twice.** The Board refused to let Balico walk away, sat through a public hearing from 8:10 to 10:12 PM, and then denied on a stated record — a deliberate act of precedent-making rather than a no vote.[83]

It was refused partly on emissions, which makes it a generation refusal rather than a generic land-use denial, and therefore the right control case for this section. It is not a noise case, and should not be read as one: noise saturates the citizen testimony and is absent from the Board's motion.[84]

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[81] Pittsylvania County Board of Supervisors, minutes of 15 Apr. 2025, remarks of Amanda Sink Wydner: "the core of the proposal is a 3,500-megawatt gas-fired power plant with eight 187-foot smokestacks." Deposited primary/pittsylvania/, sha256 c1cce4111ba51b39fe67ccc5dc1a41443186b2e852c0f73f1c30e362a7860308. **[P] for what was said at the hearing; no application document stating the plant's rated capacity has been retrieved.** The 12 buildings on 746 acres: Balico Technology Campus, Preliminary Traffic Analysis, Section 11 of the application in the Board packet for 15 Apr. 2025; the 84: remarks of Amy Davis in the minutes of 18 Mar. 2025 carried in the same packet (project copy Pittsylvania_primary/civicclerk_file845.txt, not in this volume's data deposit). **[P] for the application document and for what was said.**

[82] Pittsylvania County Board of Supervisors, Business Meeting minutes, 15 Apr. 2025, Chatham High School Auditorium. Case R-25-001. Deposited primary/pittsylvania/, sha256 c1cce4111ba51b39fe67ccc5dc1a41443186b2e852c0f73f1c30e362a7860308. **[P]**

[83] Same minutes. Withdrawal: "Motion to deny the request for withdrawal of the rezoning application made by Balico, LLC. RESULT: 5-2 (Deny) … AYES: Tucker, Hite, Bowman, Dalton, Ingram NAYS: Dudley, Whittle." Merits, after a public hearing opened at 8:10 PM: "RESULT: 6-1 (Deny) … AYES: Tucker, Hite, Bowman, Dalton, Ingram, Whittle NAYS: Dudley." **[P]**

Nobody applied the reliability exception, because nobody could. Code § 56-585.1 A 5 c governs Commission approval of utility-owned generation. Balico was a private applicant seeking county rezoning. The statute that carried CERC through was not available to it and was not needed against it. A county said no using the only instrument a county has.

Balico had been here before, and won

The control case is not a first attempt. **Chickahominy Power, LLC received a certificate of public convenience and necessity from the State Corporation Commission on 8 May 2018** for a merchant gas plant in Charles City County, and the Commission's final order records that the applicant "has retained **Balico, LLC** to support and manage the design, development" of the facility.[85]

That reframes the pair. Balico is usually described as a developer the Commonwealth's institutions rejected. **The Commonwealth's institution certificated a plant Balico had been retained to develop.** What refused him in 2025 was a county board, using zoning, on grounds including emissions — the one instrument the state's generation statute does not reach.

The same developer went to the Commission and got a permit, went to a county and did not. That is not evidence that state bodies approve and counties refuse — section 5 shows Fluvanna County approving a larger merchant plant with 49 conditions. **What it shows is that the instruments are independent: a Commission certificate does not carry a county, and a county refusal does not require the Commission to have been asked.**

What the pair shows

CERC required a state commission to find an imminent threat to reliability, on a record of 1,923 comments, 83 witnesses, four days of hearing and 338 docket filings, and the Commission granted it while conceding the company had failed the statute's ordinary precondition and while acknowledging that the beneficiaries neither pay for the plant nor live beside it.

Balico required seven votes in a county building and got one.

What separates the two records is not the answer but the instrument. Before the Commonwealth, the exception was available, the record ran to 338 filings, and the question was whether reliability was threatened. Before a county, the exception was irrelevant, the record was a motion with five stated grounds, and the question was whether the land

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[84] Minutes of 15 Apr. 2025: the Board's motion states five grounds and noise is not among them, though it dominates the citizen comment preceding the vote. **[P]**

[85] *Application of Chickahominy Power, LLC, For a Certificate of Public Convenience and Necessity*, Case No. PUR-2017-00033, Final Order, 8 May 2018, at the description of the applicant and its retention of Balico, LLC. Deposited primary/scc/PUR-2017-00033_2018-05-08_ChickahominyPower_FinalOrder.pdf. **[P]** The order also applies the two-prong § 56-580 D standard discussed in section 5, eliding clause (ii) by ellipsis.

should be rezoned. Two bodies, two statutes, one project type — and neither test contains the other. Section 5 shows the same county instrument producing the opposite result on a comparable plant.

5. Route Two — Merchant Generation

Dominion needed a finding of imminent threat to build 944 megawatts of gas at Chesterfield. Two limited liability companies proposing 1,540 megawatts in Fluvanna County do not, because the paragraph that stopped Dominion reaches only utility-owned generation, and the paragraph that governs everyone else opens with the words “shall permit.”

Two statutes, opposite presumptions

Set the operative language side by side.

Code § 56-585.1 A 5 c, the clause added on 6 February 2020:

> “…the Commission **shall not approve** construction of any new **utility-owned** generating facilities that emit carbon dioxide as a by-product of combusting fuel to generate electricity unless the utility has already met the energy savings goals identified in § 56-596.2…”[86]

Code § 56-580 D, which predates the VCEA and governs certification generally:

> “The Commission **shall permit** the construction and operation of electric generating facilities and energy storage resource facilities in the Commonwealth upon a finding that such generating facility and associated facilities … (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility, (ii) are required by the public convenience and necessity, **if a petition for such permit is filed after July 1, 2007, and if they are to be constructed and operated by any regulated utility whose rates are regulated pursuant to § 56-585.1**, and (iii) are not otherwise contrary to the public interest.”[87]

One statute prohibits and carves out an exception. The other mandates and carves out a defence.

The word “reliability” does opposite work in each. Under § 56-585.1 A 5 c a threat to reliability is what **permits** a plant. Under § 56-580 D an adverse effect on reliability is what **blocks** one. Dominion at Chesterfield had to prove the grid was in trouble. A merchant in Fluvanna has to show it will not make trouble.

And clause (ii) is conditional. The requirement to demonstrate public convenience and necessity attaches only to petitions “constructed and operated by any regulated utility whose rates are regulated pursuant to § 56-585.1.” On the face of the text, a non-utility

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[86] Va. Code § 56-585.1 A 5 c. Emphasis added. Deposited primary/statute/st_56-585.1.txt. **[P]**

[87] Va. Code § 56-580 D. Emphasis added. Deposited primary/statute/st_56-580.txt, retrieved 23 Aug. 2026. **[P]**

applicant is not held to it. That reading makes Expedition Generating's filing a petition for a Certificate of Public Convenience and Necessity that need not establish public convenience and necessity.

The Commission has been reading it that way since at least 2017, and it says so by omission. In the only two merchant generation certificate cases the docket returns, the Commission recites the governing standard and drops clause (ii) with an ellipsis:

> "The Commission shall permit the construction and operation of electrical generating facilities in Virginia upon a finding that such generating facility and associated facilities (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility, **. . .** and (iii) are not otherwise contrary to the public interest."[88]

That is the text as quoted in *C4GT, LLC*, Case No. PUE-2016-00104, Final Order of 3 May 2017, and again in *Chickahominy Power, LLC*, Case No. PUR-2017-00033, Final Order of 8 May 2018. Both concern gas plants in Charles City County. Both orders record why the prong drops out, in nearly identical words: the applicant "would operate the Facility as an independent merchant power plant" — in the second case "an exempt wholesale generator" — and "the rates for electricity from the Facility would not be regulated pursuant to Code § 56-585.1, and its costs would not be included in the rate base of any regulated utility."[89]

The phrase "required by the public convenience and necessity" appears zero times as an applied test in either order.[90]

So a certificate of public convenience and necessity is issued to a merchant applicant without a finding of public convenience and necessity. The Chesterfield order applies all three prongs because Dominion is rate-regulated and the conditional is satisfied there. Expedition is not, and PUR-2026-00102 will show whether nine years of practice holds.

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[88] *Application of C4GT, LLC, for certification of an electric generating facility in Charles City County pursuant to § 56-580 D*, Case No. PUE-2016-00104, Final Order, 3 May 2017, at the recitation of the governing standard; ellipsis in the original. Deposited primary/scc/PUE-2016-00104_2017-05-03_C4GT_FinalOrder.pdf. **[P]** — the elision is in the order as issued, and it recurs in the second merchant case.

[89] Same order at the description of the applicant; and *Application of Chickahominy Power, LLC, For a Certificate of Public Convenience and Necessity*, Case No. PUR-2017-00033, Final Order, 8 May 2018, quoting the identical standard with the same ellipsis and giving the same rationale. Deposited primary/scc/PUR-2017-00033_2018-05-08_ChickahominyPower_FinalOrder.pdf. **[P]**

[90] String search of both final orders for "required by the public convenience and necessity," run 24 Aug. 2026: zero occurrences in either. **[P, negative.]** A docket search returned no other merchant generation certificate case under § 56-580 D, so the practice is documented across the whole retrieved set rather than a sample of it.

The county got there first, with 49 conditions

Expedition cleared a full local land-use process four months before it reached the Commission, and the certificate application says so:

> "Expedition has **secured all discretionary local land use approvals.** On **March 19, 2026**, the Fluvanna County Board of Supervisors found Expedition to be in substantial accord with the Fluvanna County Comprehensive Plan and approved a **special use permit** … The SUP includes **49 conditions** to benefit the community and/or minimize the effects of the Project … Additionally, the Fluvanna County Board of Supervisors approved a **zoning text amendment** that granted a waiver for the maximum height allowances for chimneys and stacks."[91]

That matters twice. It means the scrutiny a merchant plant attracts is not measured by its SCC docket alone — a county board imposed 49 conditions and a covenant before the state proceeding opened. And it cuts against reading the Balico denial in section 4 as a state-versus-county asymmetry: Fluvanna approved a 1,540 megawatt merchant gas plant using the same instrument Pittsylvania used to refuse one. **The venue did not determine the outcome. Two counties reached opposite answers on comparable projects.**

The applicant is also the incumbent. The filing's environmental supplement records that "Tenaska has been part of the Fluvanna County community for more than 20 years, dating to the development of its existing power plant, Tenaska Virginia Generating Station."[92] The 1,011 megawatts of merchant gas already in the county and the 1,540 megawatts proposed beside it belong to the same developer.

Expedition Generating

Filed **15 July 2026**. Expedition Generating I, LLC and Expedition Generating II, LLC seek certificates to construct and operate a natural gas-fired electric generating facility in **Fluvanna County**.[93]

From the application: two combined-cycle generating units configured as a **2x1x1 facility**, with a nominal summer capacity of up to **1,540 megawatts**, and an approximately **1.8-**

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[91] Expedition Generating I and II, CPCN filing, PUR-2026-00102, DEQ Supplement (Appendix C) at 1. Deposited primary/scc/PUR-2026-00102_2026-07-15_Expedition_CPCN_Petition.pdf. **[P] for the applicant's statement.** The SUP itself and its 49 conditions are referenced as Attachment C.1(a) and **have not been retrieved**; the Fluvanna County record is the upgrade path.

[92] Same supplement, community engagement narrative. **[P]** The corporate relationship between Tenaska and the Expedition entities is stated by the applicant and has not been traced through corporate filings.

[93] SCC Case No. PUR-2026-00102, established 17 July 2026, status Active. Caption per the Commission's case record. **[P]**

mile 500 kilovolt generation-tie line running to the point of interconnection at Dominion's existing **Cunningham Substation**.[94]

It is 1.6 times CERC and it is combined cycle rather than simple-cycle peaking, which means it is built to run rather than to stand by. The applicants are limited liability companies. Dominion owns the substation it connects to and none of the plant.

Fluvanna County already hosts **1,011 megawatts of merchant gas**: the Tenaska Virginia Generating Station, four combined-cycle units in service since 2004, owned by Tenaska Virginia Partners LP.[95] Expedition would be the second merchant gas plant in the county. A five-megawatt solar facility a few miles away is named for the same substation.[96]

The pattern from Chesterfield repeats with a different owner and a different statute. New generation lands where transmission already terminates.

A related docket is worth noting and not over-reading. PUR-2026-00121, filed 29 July 2026, seeks approval of affiliate agreements between **East Coast Transport, Inc.** and the two Expedition entities under Chapter 4 of Title 56.[97] The corporate structure behind the applicants is not mapped in this report and should be before the applicants are characterised.

The queue knew first

Two entries in the DOM Zone Reliability Resource Initiative project list, filed as an exhibit in the Chesterfield certificate case on **26 September 2025**, describe new natural gas hybrid capacity at **Cunningham, Fluvanna County**, requested in service 2031, at 776 megawatts maximum facility output each.[98]

776 plus 776 is 1,552. Expedition states 1,540 megawatts nominal summer capacity.

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[94] Expedition Generating I and II, Application for CPCN, filed 15 July 2026, direct testimony. Deposited primary/scc/PUR-2026-00102_2026-07-15_Expedition_CPCN_Application_Part1.pdf. **[P]**

[95] U.S. EIA Form EIA-860, 2024 vintage. Tenaska Virginia Generating Station, units CTG1, CTG2, CTG3 at 207 MW each and STG1 at 390 MW, in service 2004. Dataset datasets/va_generation_fleet_inventory_v0_1.csv. **[P]**

[96] Same dataset: Cunningham Solar LLC, 5 MW, Fluvanna, in service 2023, Arevon Energy. **[P]**

[97] SCC Case No. PUR-2026-00121, established 29 July 2026. **[P] for the docket; the corporate relationship is NOT characterised here and should not be asserted from the caption alone.**

[98] Exhibit 49, DOM Zone RRI Projects, Case No. PUR-2025-00037, filed 26 Sept. 2025, sponsored by Dominion witness Lisa R. Crabtree; sourced in turn to PJM Planning Committee materials of 6 May 2025. Entries AH1-712 and AH1-723. Deposited primary/pjm_via_scc/. **[P]**

This identification is probable and not established.[99] The RRI list carries no applicant name. Maximum facility output and nominal summer capacity are different measures, so the twelve-megawatt gap is neither corroboration nor refutation. What would settle it is a queue position number in Expedition's petition or a PJM record naming the applicant, and neither has been retrieved.

If it holds, the timing is the finding rather than the match. Dominion filed the exhibit ten months before Expedition filed its application. Anyone reading the Chesterfield record closely in autumn 2025 had 1,552 megawatts of new Fluvanna gas in front of them, sponsored by Dominion's own witness, in a case about whether Virginia needed 944 megawatts of new gas.

Gordonsville

The same exhibit carries a third entry: **1,295 megawatts** of new natural gas at **Gordonsville, Orange County**, requested in service 2031, capacity 1,276 megawatts.[100]

It is larger than CERC and smaller than Expedition. **No application to construct a 1,295 megawatt generating facility at Gordonsville appeared anywhere in the Commission's docket when it was searched on 23 August 2026.**[101] The search returned an existing merchant operator, Gordonsville Energy, L.P., with local tax assessment cases from 2002 and 2003, and a Remington–Gordonsville transmission certificate from 2015. Nothing else.

Either the petition had not been filed when that search was run on 23 August 2026, or it will arrive the way Expedition's did, from an applicant that § 56-585.1 A 5 c does not reach.

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[99] Identification of the Cunningham RRI entries as Expedition. **[I] — probable and not established. Missing: a queue position number in the petition, or a PJM record naming the applicant.**

[100] Same exhibit, entry AH1-676. **[P]**

[101] SCC DocketSearch API, caption search on "Gordonsville," all divisions, all years, run 23 Aug. 2026. Four results, none a generation certificate application. **[P, negative — bounded by the SCC docket register; not a claim about the world.]**

What the road looks like

Three plants, three routes.

	CERC	Expedition	Gordonsville
Capacity	944 MW	1,540 MW	1,295 MW
Type	simple cycle	combined cycle	not stated
Applicant	Dominion	two LLCs	none filed (23 Aug. 2026 search)
§ 56-585.1 A 5 c	applies; cleared by reliability finding	does not apply	would not apply
§ 56-580 D (ii)	applies	conditional; contested reading	conditional
Status	approved, under appeal	active	no docket (23 Aug. 2026 search)

The exception drafted in committee on 6 February 2020 has certificated exactly one plant. The two proposals in this table, both larger than it, do not need it at all. Dominion's 3,000-megawatt Cumberland plant, taken up in section 4, will need it. The introduced version of the bill, which barred petitions for "any new generating resources," would have reached all four.

That is what the two words did. Not a loophole discovered by lawyers years later, but a qualifier inserted at markup that took the largest category of new fossil generation out of the statute before the statute passed. Whether anyone intended that result is not established by any document this project has been able to reach.

6. Route Three — Behind the Meter

The Sterling plant described at the opening of this report is the clearest instance of the third route, and, on the record to 24 August 2026, the least examined generation of any size in the Commonwealth. It has been running since April 2024 on a registration that required no hearing, no docket and no certificate.

The exclusion is enumerated, and the test is the meter

The question does not require construing "for sale" in the opening clause of § 56-265.1(b). The statute enumerates the exclusion outright:

> "However, the term 'public utility' does not include any of the following: … **(2) Any company generating and distributing electric energy exclusively for its own consumption.**"[102]

A company that burns gas to make electricity it consumes itself is excluded by name. § 56-580 D's certification requirement does not reach it.[103]

A second exclusion sits directly beneath it, and no Virginia data center has been shown to rely on it. Subdivision (3) excludes a company furnishing electric service with heating and cooling "generated at a **central plant installed on the premises to be served**, to the tenants of a building or buildings located on a **single tract of land undivided by any publicly maintained highway**," provided it "**does not charge separately or by meter** for electric energy used by any tenant except as part of a rental charge." That is a multi-tenant campus on one parcel with power folded into rent. It carries a duty: notice to the Commission in writing, of ownership, capacity and location, **within 30 days of building-permit issuance**.[104]

The limit, which is where the argument actually lives

Supplying a single affiliated customer is still a sale. In 2021 Chickahominy Pipeline, LLC asked the Commission to declare it outside the Utility Facilities Act. The Commission **denied the petition**, holding the company would be a public utility "within the plain language of Code § 56-265.1(b)" because it would distribute gas "**for sale** to a certificated

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[102] Va. Code § 56-265.1, definition of "public utility." Emphasis added. Deposited primary/statute/st_56-265.1.txt, retrieved 23 Aug. 2026. **[P]**

[103] Va. Code § 56-265.1(b)(2). **[P] — express statutory exclusion, not construction.** The enumerated exclusion disposes of the question as a matter of law; what remains open is factual, and is stated in the table above.

[104] Va. Code § 56-265.1(b)(3), including the notification duty. **[P] No search has yet been run for filings made under this provision.** If colocation campuses are using the (b)(3) route the notices exist in the SCC record; if they are not, the absence is a finding. Free route, and not attempted.

electric generation facility" — one customer, an affiliated project — and that applying the Act on those facts "would not produce an absurd result." Chickahominy then moved to withdraw the petition and vacate the order. The Commission "exercises its discretion **not to vacate**" and denied the motion. The case was dismissed; the holding stands.[105]

And metering creates a presumption of sale even when the charge is buried in rent. In *Montvale Water* the Commission held that if a landlord "**meters** water usage at individual rental premises … a presumption arises that a volumetric charge … will be made **even though it may be rolled into a periodic rental charge**," at which point the supply "would thus become a distinct business, not merely an amenity **incidental**" to the main one. The converse case is *Prince George*, where residents paid flat rent and were not billed for usage, and the Commission found a single customer and no public utility. The Chief Examiner also read the statute to require "a **mercantile relationship**" for electricity and gas specifically, while finding no sale requirement for water and sewer — which is why a water case decides an electricity question in this direction.[106]

Two authorities and one statute converge on the same line.

Arrangement	Status
Same entity generates and consumes; no sale	**excluded** — § 56-265.1(b)(2)
Central plant, one undivided tract, **unmetered**, cost in rent	**excluded** — (b)(3), with a 30-day notice owed
Tenant power **metered**, charge folded into rent	*Montvale* presumption of sale attaches
Any sale to a separate entity, **including one affiliate**	**public utility** — *Chickahominy Pipeline*

So the question this section turns on is not statutory construction. It is two facts. Does the entity that owns the generation also consume the output? And is tenant power

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[105] *Petition of Chickahominy Pipeline, LLC, for a declaratory judgment*, Case No. PUR-2021-00211, Final Order, 22 Dec. 2021, and Order on Reconsideration, 28 Mar. 2022. Deposited primary/scc/PUR-2021-00211_2021-12-22_ChickahominyPipeline_DeclJudg_FinalOrder.pdf and …_2022-03-28_ChickahominyPipeline_OrderOnRecon.pdf. **[P]** A gas case; the reasoning is about the shared definition in § 56-265.1(b) and the Commission applied it to a single-affiliate supply arrangement.

[106] *Petition of Montvale Water, Inc., for declaratory judgment*, Case No. PUE-2002-00249, Order, 10 June 2004, and the Chief Hearing Examiner's Report, quoting *Prince George*. Deposited primary/scc/PUE-2002-00249_2004-06-10_MontvaleWater_Order.pdf and …_HearingExaminerReport.pdf. **[P] for the quoted holdings. [I] for the extension to electricity**: Montvale is a water case, and while the Chief Examiner distinguished the electric and gas clause as requiring a sale, no order applying the metering presumption to on-site electric generation has been located.

metered? Those are answerable about any campus, which turns a one-site observation into a test.

Set the three roads in one table.

	CERC	Expedition	Vantage VA2
Owner	Dominion	two LLCs	data center operator
Output	944 MW	1,540 MW	~132 MW
Generating for sale?	yes	yes	**no**
§ 56-585.1 A 5 c reliability gate	applies	no — not utility-owned	no
§ 56-580 D certificate	required	required	**not required**
State permits obtained	SCC CPCN + DEQ air	SCC CPCN pending + DEQ air permit application pending (received 30 April 2026)[107]	**DEQ air permit only**
Public participation	1,923 comments, 83 witnesses, four hearing days	pending	**none required**
Status	approved, under appeal	active	**operating since April 2024**

Scrutiny decreases from left to right. Only the rightmost column is generating electricity today.

[107] Virginia DEQ, "Expedition Generating Station" topic page, read 24 Oct. 2026: "On April 30, 2026, DEQ received a Prevention of Significant Deterioration (PSD) air permit application" from Expedition Generation Holdings, LLC, dated 28 April 2026; "Determination of the proposed facility emissions are pending DEQ's review of the application, which is active and ongoing." The page describes the plant as approximately 1,580 megawatts, against the 1,540 megawatts nominal summer capacity in the Commission filing; the two figures are the two agencies' descriptions and are not reconciled here. The DEQ applicant name differs from the Commission applicants (Expedition Generating I and II, LLC). **[P]**

What is actually at Sterling

DEQ Registration **74242**, minor New Source Review, application March 2023, **issued 15 September 2023**, no public hearing required.[108] Turbine construction began 3 November 2023. Normal operation, 1 April 2024.

The campus is Vantage Data Centers VA2 at 22435 Glenn Drive, Sterling: eighteen acres, three buildings, roughly 800,000 square feet, 96 megawatts of critical IT load.[109] **It is not connected to the electric grid.** Primary power comes from **eight Solar SMT 130 simple-cycle natural gas turbines rated 16.5 MWe each**, running continuously, described as an interim arrangement pending Dominion transmission.[110]

Eight times 16.5 is 132 megawatts. That is about one-seventh of CERC, generating now rather than in 2029, on a permit that carried no comment period.

And the turbines are not the whole plant. An analysis commissioned by the Piedmont Environmental Council quotes the permit directly:

> "…the facility is authorized to operate multiple combustion sources, including eight natural-gas simple-cycle turbines (Ref. Nos. TG-01 through TG-08) and **51 diesel engine generator sets**, consisting of **49 emergency diesel gen-sets** (Ref. Nos. EG-01 through EG-49) and **two black-start diesel gen-sets** (Ref. Nos. EP-BS1 and EP-BS2)."[111]

Fifty-nine permitted combustion units on eighteen acres, on that reading. The project's generator memo records a different count for the same registration: DEQ's April 2026 Stationary Source Assessment lists 40 emergency diesel gen-sets and 2 black-start units, 42 in all, which with the eight turbines makes fifty. The two counts are not reconciled here; the permit itself would settle them. A campus with no grid connection still carries a full backup diesel fleet, because the thing it is backing up is its own generation. When the site went dark across 16 and 17 July 2026, the failure was of the plant, not of the utility.[112]

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[108] noise_research_E_generators.md §5.2. **[S] — the noise volume's account, verified there against the DEQ Stationary Source Assessment.** The permit itself is not in hand; DEQ does not publish individual permits.

[109] Same, citing Vantage's published figures. **[S]**

[110] Same, verified in that memo against six named outlets. **[S] — the megawatt total (8 × 16.5) is arithmetic on the reported unit rating and is [I].**

[111] EmPower Analytics Group LLC for the Piedmont Environmental Council, *Air Quality, Health, and Economic Impacts of the Vantage Data Center Facility*, 27 Feb. 2026, at 18, quoting DEQ Air Permit No. 74242. Deposited primary/pec/. **[S] — a named expert quoting permit reference numbers at length; the permit remains the [P] path.**

[112] noise_research_E_generators.md §5.2, Event C, 16–17 July 2026. **[S]** The DEQ count: same memo, §5.2, "Generator inventory," recording DEQ's April 2026 Stationary Source Assessment (EG-10 through EG-49 and EP-BS1, EP-BS2), which is not in this volume's

EPA classifies the facility **“80% Synthetic Minor Emissions”** — a source holding federally enforceable limits at or above eighty percent of the major-source threshold — status Operating, seven evaluations on record, no violations.[113] Fifty-nine percent of Virginia’s data center air sources share that classification.[114]

The health estimate, and how far it can be pushed

EmPower Analytics Group modelled the facility for PEC, with Michael Cork of the Harvard T.H. Chan School as principal author and Francesca Dominici as senior scientific advisor.[115] Using EPA’s COBRA model, the report estimates **$53–99 million per year** in health damages and **3.4 to 6.5 additional premature deaths per year**, rising to $1.59–2.97 billion and 102–195 deaths over thirty years undiscounted. Largest county-level annual-average exposure increase in Loudoun at 0.034 μg/m^3; community peaks in Sterling at 0.137 μg/m^3.[116]

These figures model operation at the facility’s maximum permitted annual emission limits, and the qualifier travels with them or they should not be quoted. The report says so, and discloses that the permit does not specify complete stack geometry, that AERMOD does not model secondary PM2.5 formation, and that its exposure thresholds “are not health-based standards and should not be interpreted as distinguishing ‘safe’ from ‘unsafe’ conditions.”[117]

The comparison a reader will want cannot be made. Virginia has no published actual-emissions figure for this plant: the 2023 National Emissions Inventory closes before the turbines reached normal operation, and the Vantage record in that inventory is the neighbouring VA11–VA15 campus at 18.7 tons of NOx.[118] The 2024 inventory will close the gap and is free.

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deposit. **[S] for both counts; the permit remains the [P] path.**

[113] datasets/echo_deq_datacenter_air_crosswalk_v0_2.csv, joined on registration 74242. **[P]**

[114] Same dataset: 79 of 134 ECHO records. **[P]**

[115] PEC/EmPower report, title page. **[P] for authorship.**

[116] Same, executive summary. **[S[1]] — one commissioned analysis; not independently replicated.**

[117] Same, methods and limitations sections. **[P] for the disclosures.**

[118] datasets/nei2023_va_datacenter_emissions_v0_1.csv. Registration 74242 does not appear; registration 74162 (VA11–VA15) reports 18.7 tons NOx. **[P, negative for 74242 in the 2023 vintage]**

Two more, and one of them changed fuel

Point One, Charles City County. Thirty-five gas turbines, characterised in the trade reporting as an apparent workaround of the VCEA's limits on new fossil generation.[119] PointOne Richmond LLC filed a DEQ air permit application on **19 December 2025**, pending on DEQ's list of active applications as compiled for this report's 24 August 2026 evidence snapshot.[120] It appeared in no SCC docket in a caption search of 23 August 2026.[121]

Remington Technology Park, Fauquier County. Thirteen gas turbines, **recently replaced with 488 fuel cells**.[122] Remington Technology Park Limited Partnership filed a new DEQ application on **24 July 2026** — after the 1 July cutoff, which makes it one of only three pending data center applications subject to APG-576's Tier 4-equivalent BACT standard.[123] Also absent from the SCC docket in a caption search of 23 August 2026.[124]

The fuel-cell conversion is worth holding onto rather than filing under progress. It shows the behind-the-meter route is not fixed to gas turbines. What the route provides is a permitting path that runs through DEQ alone, and the technology on it can change without the path changing.

The exit ramp

GS-5, the rate class the Commission created on the same day it approved CERC, applies to customers with "a measured or contracted demand of 25 megawatts or greater on a contiguous site" and a load factor of at least 75 percent.[125] What attaches to those customers — a fourteen-year term, minimum charges, collateral, an exit fee — is set out in section 10.[126]

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[119] media_research_B_richmond.md. **[S[1]] — single outlet, and the "VCEA workaround" characterisation is the reporter's, not a filing.**

[120] datasets/deq_active_air_permit_applications_datacenters_v0_1.csv, PointOne Richmond LLC, Charles City, received 2025-12-19. **[P]**

[121] SCC DocketSearch caption search, "Point One" and "PointOne," run 23 Aug. 2026, zero results. **[P, negative — bounded by the SCC docket register]**

[122] media_research_C1_northern_piedmont.md. **[S[1]] — single source, uncorroborated.**

[123] datasets/deq_active_air_permit_applications_datacenters_v0_1.csv, received 2026-07-24. The BACT cutoff is APG-576 as revised effective 9 Apr. 2026, applicable to applications received on or after 1 July 2026. **[P]**

[124] SCC caption search, "Remington Technology," run 23 Aug. 2026, zero results. **[P, negative]**

[125] SCC Final Order, Case No. PUR-2025-00058, 25 Nov. 2025, Rate Schedule GS-5. **[P]**

[126] Same. **[P]**

Every one of those obligations attaches to a customer taking service.

A campus generating its own power on site has no measured or contracted demand from the utility to speak of. It is not in the rate class. The instrument built to make large loads pay for the system they strain does not reach the large loads that leave the system. **As of 24 August 2026 the GS-5 exit ramp was unexamined: behind-the-meter generation removes load from the rate class designed to make it pay.**[127]

And the grandfathering compounds it: the contract and collateral provisions reach only customers signing an electric service agreement **on or after 1 January 2027**, so existing campuses stand outside the rate class whether or not they generate their own power.[128]

The Governor's *Data Center Accountability Framework* of 18 September 2026, released after this report's evidence date, proposes, for the 2027 session, to "[l]imit the amount of electricity data centers can generate from on-site natural gas or behind-the-meter gas generation to the maximum extent practicable".[129] That is a proposal. The statute and the GS-5 schedule this section describes are cited as they stood on 24 August 2026.

The 2020 statute bars the Commission from approving new **utility-owned** carbon-emitting generation absent a reliability finding. A merchant does not face it, because the plant is not utility-owned. A data center generating for itself faces neither that statute nor the certification regime, because it is not generating for sale — one minor New Source Review permit, no comment period, and the plant has been running for twenty-eight months.

One route remains, and it is the largest by unit count.

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[127] media_research_E_statewide.md. **[P] for the internal observation; the argument built on it here is mine.**

[128] PUR-2025-00058 Final Order: contract and collateral provisions apply to customers "taking initial service and signing an ESA on or after January 1, 2027." **[P]**

[129] Office of the Governor, *Virginia's Data Center Accountability Framework* (18 Sept. 2026), at 7, Pillar 4. The document prints no date; 18 September 2026 is its reported date of release. Its own account of its status, at 2: "Heading into the 2027 legislative session, Governor Spanberger will work with the General Assembly to write these standards permanently into Virginia law". Read 24 Oct. 2026 at governor.virginia.gov. **[P]**

7. Route Four — The Parallel Fleet

Virginia's data centers hold thousands of diesel engines that almost never run. Both halves of that sentence are load-bearing, and most writing on the subject picks one.

An official count exists

Writing on the subject routinely says that no government census of these generators exists and that every circulating figure traces back to the Piedmont Environmental Council hand-assembling permit records.[130] One does exist. JLARC published a statewide count in December 2024 — approximately 8,000 permitted generators as of that August, derived from Department of Environmental Quality air permits for the sites DEQ had identified. It is a legislative-agency figure with a named administrative source and a date.

What does not exist is a count of *installed* generators, a count by locality, or a public site-level register. Two of those three have since narrowed. DEQ now publishes an issued-permit table with locality, captured here at **201 permits across 190 facilities**, and a pending-application register carrying **37 more**.[131] What remains genuinely absent is a public register of **installed generating capacity by site**.

The registers, and what they cover

The 201 issued permits break down as **193 minor New Source Review, 6 State Operating Permits, 2 Title V**.[132] No Chapter 540 general permits appear, which raises the obvious question of whether the register misses the bulk of the fleet through a general-permit gap. It does not. DEQ's own guidance says so: "The vast majority of emergency generators have been (and will continue to be) permitted via Article 6."[133] Article 6 is site-specific minor NSR, and that is what the register is.

Minor NSR permits **do not expire** and carry **no public comment period** unless the agency exercises discretion to require one.[134] The regulatory pathway for the largest concentration

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[130] The position is common enough to have been carried in this author's own earlier files (noise_research_E_generators.md §8.2). No systematic survey of how widely it is held has been attempted. **[S[1]]**

[131] datasets/deq_datacenter_air_permit_register_v0_1.csv (201 permits, 190 facilities, 185 distinct site-name strings, verified by exact ordered match against DEQ's published registration sequence) and datasets/deq_active_air_permit_applications_datacenters_v0_1.csv (37, NAICS 518210). Captured 23 Aug. 2026 from tables dated 17 Aug. 2026. **[P]**

[132] Same issued register, normalised across three spellings of the Article 6 program. **[P]**

[133] DEQ, APG-578, 1 Oct. 2025, at 1. Deposited primary/deq/. **[P]**

[134] DEQ, Air Permits guidance page, minor NSR section: permits "do not expire and remain in effect until a project… takes place," and "do not have to go through public participation…

of backup generation in the country is the one built for sources too small to warrant a hearing.

Two-thirds of it is recent. 135 of the 201 permits were issued between 2022 and 2026, and 2026 is the highest year on record with four and a half months still to run.[135]

2022	2023	2024	2025	2026 (to 17 Aug)
12	17	28	34	**44**

Add the 31 applications received in 2026 and the year carries **seventy-five permit actions in under eight months**.[136]

The count problem, unreconciled

Four statewide figures circulate and they do not agree.

Figure	Source	Basis
~8,000 permitted generators	JLARC, from DEQ permits, August 2024	legislative agency, named administrative source[137]
~9,000	Piedmont Environmental Council	hand-assembled permit files[138]
~10,000	Washington Post, 28 May 2026	derivation unverified[139]
~13,000	Kyle Hart, NPCA	reconciled nowhere[140]

Within Loudoun the disagreement is sharper. A DEQ figure gives roughly 4,021 Tier II plus 130 Tier IV countywide; the Piedmont Environmental Council's tally gives 4,700 for **eastern Loudoun alone** and declines to reconcile them.[141]

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unless the facility has the potential for public interest concerning air quality issues, as determined by the board in its discretion." **[P]**

[135] Issued register, permit_year field. **[P]**

[136] 44 issued in 2026 through 17 Aug. plus 31 applications received in 2026. **[P]**

[137] JLARC, *Data Centers in Virginia*, Report 598 (RD206, 2025 series), 9 Dec. 2024, ch. 5. Deposited primary/jlarc/. **[P] — the count is JLARC's and DEQ-sourced; quoted in full at note 142.**

[138] Piedmont Environmental Council, permit tally as reported. **[S[1]] — the underlying hand-assembled files have not been retrieved.**

[139] *Washington Post*, 28 May 2026. **[S[1]] — derivation unverified.**

[140] Kyle Hart, National Parks Conservation Association, as quoted in press coverage. **[S[1]]**

These figures cannot be averaged. They count different things at different dates under different definitions, and the Commonwealth publishes no number that settles it.

JLARC's own figures are more useful than the range suggests. Verbatim:

> "On average, each data center site has **54 permitted generators**, but the number and electrical capacity of these generators vary widely depending on the number of data center buildings at a site, overall power and redundancy needs, and the sizes of generators used (**typically one to three megawatts per unit**). In total, the industry has **approximately 8,000 permitted generators** throughout the state."[142]

Three numbers, one sentence, and the third is the one nobody has used.

An aggregate capacity is derivable from JLARC's own arithmetic, and it is a range. Eight thousand units at one megawatt is 8 GW; at three megawatts, 24 GW. At the 1.5-megawatt midpoint it is exactly 12 GW — which is where the twelve-gigawatt figure in circulation comes from.[143] The figure is not unsourced. It is a midpoint, the range around it runs 8 to 24, and any single point inside that range is a choice rather than a finding.

The per-site figure reconciles the registers. JLARC's 8,000 across 54 per site implies roughly 148 sites as of August 2024. DEQ's register shows 190 facilities by August 2026, and the permit curve adds 28 in 2024, 34 in 2025 and 44 in 2026. Vantage VA2, permitted for 51 diesel units on the PEC/EmPower reading of the permit or 42 on DEQ's April 2026 assessment, sits under JLARC's average either way.[144] Nothing here is inconsistent.

What JLARC actually found

The instinct of a report about generation is to treat twelve gigawatts of unpermitted-for-dispatch diesel as alarming. JLARC's finding runs the other way and it is primary:

> "in 2023, the industry's actual emissions were only **7 percent of what permits allowed**, with most emissions coming from maintenance testing."[145]

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[141] Loudoun_Research_Grid_v1_0.md §5.3 and noise_research_E_generators.md. **[S[1]] each; the two are in direct conflict and the conflict is the finding.**

[142] JLARC, *Data Centers in Virginia*, Report 598 (RD206, 2025 series), 9 Dec. 2024, ch. 5. Emphasis added. Deposited primary/jlarc/. **[P]**

[143] 8,000 × 1 MW = 8,000 MW; × 1.5 = 12,000 MW; × 3 = 24,000 MW. **[I] — arithmetic on JLARC's stated unit count and per-unit range. The midpoint is a choice, not a finding, and the range is printed rather than a point estimate.**

[144] 8,000 ÷ 54 ≈ 148 sites. DEQ issued register, 190 facilities as at 17 Aug. 2026. Vantage VA2 unit count per the PEC/EmPower reading of Permit 74242, or 42 per DEQ's April 2026 assessment as the generator memo records it (note 112). **[I] for the reconciliation; the inputs are [P] and [S] respectively.**

> "in Northern Virginia, where most data centers are concentrated, data center emissions make up **less than 4 percent of regional nitrogen oxides emissions** and 0.1 percent or less of regional carbon monoxide and particulate matter emissions."[146]

Operators told JLARC they had experienced zero to two minor outages per site in two years, nearly all lasting one to five hours. Routine testing is a ten-to-thirty-minute monthly run and one annual run of one to four hours, staggered across a site.[147]

The independent check agrees. Twenty-three Virginia data center facilities reported to the 2023 National Emissions Inventory — the same dataset JLARC used — at **343.2 tons of NOx** and **9.1 tons of PM2.5 primary** in total.[148]

The fleet is enormous in nameplate and small in output. Both halves belong in any account of it; the first alone is alarming and incomplete.

PJM has since described a switchover event. In its account of 10 September 2026, on 22 July 2026 "nearly 4,000 MW of data center load unexpectedly disconnected from the grid in northern Virginia," and the data centers "switched to run on their own backup generation facilities"; its account of 22 October 2026 gives about 3,900 megawatts for the same event.[149] That is the load transferred in one event. It is not a measure of how long the generators ran or of what they emitted.

The worst case, quoted correctly

JLARC's alarming number is real and it is conditional. Verbatim:

> "In the event of a prolonged outage that affects one or more Northern Virginia counties, any affected data centers could reach their emission maximum within a few days… under a worst-case scenario where all data centers in Northern Virginia reach their maximum allowed emissions, data centers would emit **over**

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[145] JLARC Report 598, ch. 5. Emphasis added. **[P]**

[146] Same, summary finding. Emphasis added. **[P]**

[147] Same, ch. 5 and sidebar. **[P]**

[148] datasets/nei2023_va_datacenter_emissions_v0_1.csv. 23 facilities meeting the NEI reporting threshold; **not a census** and not extrapolable to the full fleet. **[P] for the figures; the coverage limit is stated.**

[149] PJM Inside Lines, 10 Sept. 2026, insidelines.pjm.com/reliability-standards-to-manage-large-load-disconnection-events-proposed-by-pjm/, and 22 Oct. 2026, insidelines.pjm.com/pjm-ferc-focus-on-large-load-challenges-at-tech-conference/, both read 24 Oct. 2026. The two figures are PJM's own for one event; neither is a metered figure read for this report. **[P]**

> **9,000 tons of nitrogen oxides** in the region. That is equal to **about half of what has typically been emitted annually in Northern Virginia by all sources.”**[150]

JLARC adds that such outages are rare and that air quality returns to normal afterward.

The arithmetic is internally consistent: if the permitted ceiling is roughly half of regional annual NOx and actual running is seven percent of the ceiling, actual is around three and a half percent of regional — which is the “less than 4 percent” figure. The two statements are the same fact seen from either end.

The condition JLARC’s reassurance rests on was changed ten months later

This is the section’s argument and it requires no speculation.

JLARC’s finding that the fleet is a minor contributor is conditioned on generators running only in genuine emergencies and for maintenance. That condition is regulatory, not physical. It comes from the definition of “emergency” in DEQ’s permit regime.

On **1 October 2025**, DEQ issued guidance document APG-578 reversing its published interpretation of that definition. The prior position was that “sudden and reasonably unforeseeable events do not include scheduled or planned power outages associated with electricity service provider activities.” APG-578 holds that a planned outage **may** qualify, with an illustrative threshold of fourteen calendar days’ notice or less and a requirement that the permittee notify DEQ within 24 hours.[151]

The reasoning is the part to quote:

> “‘Planned’ power outages (in spite of the label) are generally not scheduled based on the convenience of their timing, but instead on the basis of **unforeseeable and irreconcilable demands on the electric grid.”**[152]

An environmental regulator wrote down that grid stress has become routine enough that scheduled outages should be treated as unforeseeable events.

The seven percent figure was measured in 2023, under the old interpretation. Whether utilization rises under the new one is an empirical question with a free answer: the 2025 and 2026 National Emissions Inventories, when EPA releases them, will show it. Nothing available today settles it.

Running the other direction over the same period: APG-576, revised effective 9 April 2026, sets presumptive Best Available Control Technology for data center gensets at selective catalytic reduction plus diesel oxidation catalyst plus diesel particulate filter — Tier 4-

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[150] JLARC Report 598, ch. 5. Emphasis added. **[P]**

[151] DEQ, APG-578, 1 Oct. 2025. **[P]**

[152] Same. Emphasis added. **[P]**

equivalent — for applications received on or after **1 July 2026**.[153] Between January 2025 and April 2026 DEQ recommended cleaner backup technology, loosened the emergency definition, then required cleaner technology prospectively. Three steps, fifteen months, the middle one against the other two.

Thirty-four of the thirty-seven pending applications were received before the BACT cutoff. Twenty-six arrived in June 2026, the final month. Twenty of those between 24 and 30 June.[154] That distribution is consistent with filing ahead of a deadline and no document establishes intent. It is also bounded: the pending register is the active set, so applications already issued have left it, and the comparison that survives is internal — 26 in June against 3 in the seven weeks after.

The compliance record

EPA's ECHO database carries 134 Virginia air facilities coded as data centers, joined to the DEQ register on the permit registration number.[155]

Fifty-nine percent are classified "80% Synthetic Minor Emissions" — sources holding federally enforceable limits at or above eighty percent of the major-source threshold. Seventy-nine of 134, and 41 of 61 in Loudoun.[156] A synthetic minor is not a small source. It is a source engineered to sit just under the line that would trigger major-source review, and EPA's own classification field says how close.

In the ECHO extract compiled for this report's 24 August 2026 evidence snapshot, one facility is in High Priority Violation with the status "Unaddressed-State": Microsoft Corporation – Leesburg Data Center (IAD01-02-03-04-05), Loudoun, last violation 21 August 2025, **five quarters in violation**, eight evaluations on record.[157] Six more facilities carry a violation within one year.[158]

Thirty-nine of the 134 carry no evaluation on record at all, and the median among those that do is two.[159] Set that beside a regime whose central protection is a runtime limit verified after the fact.

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[153] DEQ, APG-576 as revised, effective 9 Apr. 2026, per DEQ's published notice; applicability to applications received on or after 1 July 2026. Deposited primary/deq/. **[P]**

[154] datasets/deq_active_air_permit_applications_datacenters_v0_1.csv, Application Received Date. **[P] for the distribution; the active-register bias is stated in the text.**

[155] datasets/echo_deq_datacenter_air_crosswalk_v0_2.csv, 88% joined across two passes. **[P]**

[156] Same. **[P]** The file carries 61 Loudoun rows; its README gives 60.

[157] Same. **[P]**

[158] Same. **[P]**

[159] Same. **[P]**

What is still not known

Executive Order 22, signed on 18 September 2026 after this report's evidence date and effective on signing, orders that "DEQ, in consultation with the Virginia Department of Health and Virginia Energy, shall conduct or oversee a cumulative-impact review of diesel and other backup-generation operations associated with data centers," and that DEQ submit findings and recommendations to the Office of the Governor "[w]ithin 180 days of the date of this Executive Order".[160] The review is ordered, with findings due by that deadline; nothing read for this report on 24 October 2026 describes its progress.

No public source gives installed generating capacity by site. The twelve-gigawatt aggregate and the engine counts above are neither confirmed nor refuted by anything in this report's datasets, which count permits and facilities rather than engines.[161] DEQ does not publish individual permits and directs enquiries to regional permit managers or to a records request, which is not an available route for this work.[162]

The closest available substitute is EPA's National Emissions Inventory facility-**process** file, which carries unit-level rows rather than facility totals — the only unit-level register that can be assembled without asking a regulator for records, and one this report has not assembled.

So the largest generating fleet in the Commonwealth is also the one about which least is publicly known, and the body that knows most about it is a county issuing a building permit. That is where the next section goes.

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[160] Executive Order 22 (2026), signed September 18, 2026, § I.C.2 (governor.virginia.gov, eo-22-establishing-va-data-center-accountability-and-ai-initiatives.pdf), read 24 Oct. 2026. The order states the period, not a date; 180 days from 18 September 2026 is 17 March 2027 by arithmetic. **[P]**

[161] Stated in datasets/README_deq_datacenter_air_permit_register.md. **[P]**

[162] DEQ, Issued Air Permits for Data Centers page. **[P]**

8. What the Localities Do Underneath

On 6 November 2025 Goochland County adopted a zoning overlay that permits a nuclear reactor. No reactor had been proposed. No applicant had asked. The county wrote the use into the table anyway, alongside gas peaking plants. On the one press account of the point, set out below, no other Virginia locality then had a zoning ordinance written to allow small modular reactors alongside data centers.[163]

The overlay's logic is pre-entitlement — deciding in advance what may be built so that no individual application has to be argued — and Goochland extended it from the demand side of the data center to the supply side.[164]

That extension is the section. Three counties have now crossed from regulating the load to regulating, or inviting, the generation that serves it, and each did it differently.

Goochland: the use table

The Technology Overlay District, Article 27.A, sections 15-448 through 15-450, was adopted as CP-2025-00002 and ZOA-2025-00001 after a public hearing at Goochland High School.[165]

Inside the overlay, data centers are a **by-right use**, processed administratively through a conceptual master plan and plan of development, **with no public hearing per project**.[166] Siting criteria require 100 contiguous acres and proximity to 115 kV transmission.[167]

The generation provision sits in the same use table, and the ordinance text is now in hand. Use (8) reads: "**Utility generating facility, permitted as a conditional use, which is either a natural gas peaking plant or small modular nuclear reactor facility.**" Data centers are use (3), listed without qualification.[168]

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[163] Goochland County, Board of Supervisors Approved TOD Ordinance, 6 Nov. 2025 (CP-2025-00002; ZOA-2025-00001), Article 27.A, secs. 15-448 through 15-450, via Goochland_v1_0_source.md endnote 18. **[S] — the case study cites the ordinance by section and document reference; the ordinance text has not been pulled into this volume.**

[164] Goochland_v1_0_source.md, "The SMR Thread, Run to Ground." **[P] for the internal characterisation.**

[165] Same, and endnote 18. **[S]**

[166] Same, "The Use Table." **[S]**

[167] Goochland County, ordinance adopting Article 27.A (CP-2025-00002 / ZOA-2025-00001), statement of purpose: the overlay is intended for campuses on "a minimum of 100 contiguous acres" served by "transmission lines of 115kv or more." Deposited primary/goochland/Goochland_TOD_OrdinanceChanges_2025-08-26.pdf. **[P]**

The distinction matters: the load is by-right; **that** kind of generation requires a hearing. Goochland did not hand generation the same administrative treatment it gave data centers. It put generation on the map and kept a gate on it.

The gate has the same hole as the statute. Goochland defines the term it gated:

> "**Utility generating station.** A facility which generates electricity **for sale**, transmission, or distribution or a natural gas utility which produces natural gas for sale, transmission, or distribution, other than in enclosed containers, **to the public and is rate regulated.** The term does not include solar energy facility, principal or supplementary or energy storage facility."[169]

The drafting is borrowed from Va. Code § 56-265.1(b), and it carries the same limit: **generation that is not for sale is not a utility generating station**, and therefore not the thing the conditional use permit catches. A data center in the overlay generating for its own consumption — the Vantage arrangement in section 6 — does not trip use (8) at all.

A second limit, and it is genuinely ambiguous. The qualifier "to the public and is rate regulated" may attach only to the natural gas clause it immediately follows, or to both clauses. On the broader reading, the CUP reaches only rate-regulated public utility generation, and a **merchant** plant of the Expedition kind — selling wholesale into PJM, not to the public, not rate regulated — falls outside it too. The sentence is the statute's own grammar reproduced at county scale, and no Goochland interpretation of it has been located.[170]

What is safe to say is narrower and still worth saying: **the county wrote its generation gate around a definition that turns on sale**, so the two routes this report documents as escaping state certification would also test the limits of the county's permit. The ambiguity the state statute carries is reproduced one level down, in a county that copied its language.

Three further provisions bear on generation directly. A utility generating station "may be located where the comprehensive plan designates property as Flexible or Industrial,"

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[168] Same ordinance, permitted-use list: "(3) Data centers" and "(8) Utility generating facility, permitted as a conditional use, which is either a natural gas peaking plant or small modular nuclear reactor facility." Definition at Sec. 15-500: "Facility, small modular nuclear reactor. A utility generating station, also referred to as SMR, which includes a nuclear reactor that produces electrical energy of less than 300 MWe." **[P]** — the 300 MWe threshold and the gas-peaking category read directly from the ordinance text.

[169] Same, Sec. 15-500, definition of "Utility generating station." **[P]**

[170] **[I] — the author's reading of the ordinance's grammar.** No Goochland zoning determination, staff interpretation or administrative decision construing the scope of "to the public and is rate regulated" has been located, and none was sought in the county's records beyond the ordinance itself. The parallel construction problem in Va. Code § 56-580 D is worked in section 5; this is the same species of ambiguity, and both readings are printed here for the same reason.

may not sit within **1,500 feet** of residentially-zoned property, a mixed-use development with residential uses, or the county boundary, and must observe a **300-foot** setback and a 300-foot landscaped buffer. Energy storage as a principal use is separately capped: conditional use with a siting agreement, no more than **2 percent** of total overlay area, 1,500 feet from residential or the county line, within a quarter mile of I-64 or Route 288, and either solid-state or lithium-ion not exceeding 20 MW.[171]

Cardinal News reported in September 2025 that no other Virginia locality had a zoning ordinance written specifically to allow small modular reactors alongside data centers.[172] Residents heard it as "a proposed data center and nuclear reactor development," which the case study is careful to unwind: the alarm was real and the proposal was not.[173]

The county taxes data center equipment at **$0.44 per $100** of assessed value against **$3.75** for general business personal property, an 88 percent discount re-adopted alongside the overlay.[174] A county that discounts the load by 88 percent and zones for the generation is making a single industrial-policy decision in two instruments.

Louisa: the plant that was already there

Louisa is the only county examined here that hosts baseload generation, and the sequence there runs the other way. The plant came first by half a century.

North Anna Power Station's two Westinghouse pressurised water reactors came online in **1978 and 1980** and deliver a combined **1,892 megawatts** net summer, roughly 17 percent of Virginia's electricity generation.[175]

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[171] Same ordinance: utility generating station siting at subsection (5) (Flexible or Industrial designation, 1,500-foot separation, 300-foot setback and buffer); energy storage at permitted-use item (6) (conditional use with siting agreement, 2 percent of overlay area, 1,500 feet, quarter-mile of I-64 or Rte. 288, solid-state or lithium-ion not exceeding 20 MW). **[P]**

[172] Cardinal News, "Goochland County will help us gauge the public acceptance of the next generation of nuclear reactors," 23 Sept. 2025, via Goochland_v1_0_source.md endnote 20. **[S[1]] — single outlet, and the "no other locality" claim is the reporter's.**

[173] Goochland_v1_0_source.md. **[S] — a companion case study by this author; the ordinance text it construes is at notes 167–169.**

[174] Same, "The Rate Nobody Repriced." **[S]**

[175] Louisa_v1_0_source.md Part Six. The 1,892 MW figure is net summer capacity, not nameplate; EIA-860 gives North Anna at 1,959 MW nameplate. See section 1. **[S] for the Louisa account, [P] for the capacity reconciliation.**

AWS's Lake Anna Technology Campus sits directly beside the station, on roughly 150 to 200 acres at Kentucky Springs Road and Haley Drive.[176] Amazon announced an $11 billion commitment through 2040; Clark Construction broke ground in August 2024.[177]

The campus's **minimum 420 megawatts would absorb close to half the output of one reactor**.[178]

This is this report's thesis stated as geography rather than statute. Nobody sited North Anna for a data center. The reactors were licensed and built when Louisa County had no reason to imagine the customer that would eventually locate against the fence line. The load moved to the generation because the generation was already there, and the county's zoning had to catch up to a proximity nobody had planned.

The SMR thread there is thinner than the coverage suggested, and the order says so. Dominion issued a request for proposals to SMR vendors on 10 July 2024, announced at North Anna with the governor ceremonially signing SB 454.[179] No technology has been selected.

What is documented is the money. The Commission's final order in **PUR-2024-00205**, issued **29 July 2025** under Code §§ 56-585.1:14 and 56-585.1 A 6, approved Rider SMR with a revenue requirement of **$17.099 million** for the rate year running 1 September 2025 to 31 August 2026. At the $17.2 million originally proposed, the estimated increase for a typical residential bill at 1,000 kilowatt-hours was approximately **$0.29 per month**; the order gives no bill figure for the approved amount.[180]

The order records Dominion's own position plainly: "a final decision to deploy an SMR at North Anna has not yet been made," and SMRs "require approximately ten years to develop, permit, and construct prior to commercial operations."[181]

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[176] Louisa_v1_0_source.md. **[S]**

[177] Same. **[S[1]] — the $11 billion commitment and the groundbreaking date are as reported in the case study.**

[178] Same, Part Six. **[S] — the "close to half the output of one reactor" comparison is the case study's; 420 MW against a 948 MW net summer unit is 44 percent, which is [I] arithmetic on section 1's figures and supports it.**

[179] Same, "The SMR Thread." **[S]**

[180] SCC Final Order, Case No. PUR-2024-00205, 29 July 2025. Deposited primary/scc/PUR-2024-00205_2025-07-29_RiderSMR_FinalOrder.pdf. **[P] — retrieved 23 Aug. 2026.**

[181] SCC Final Order, Case No. PUR-2024-00205, 29 July 2025, recording the Company's assertions that no final deployment decision has been made and that SMRs require approximately ten years to develop, permit and construct. **[P]**

A rider is collecting from every residential customer in the territory for a reactor the company has not decided to build, on a technology it has not chosen, at a site whose neighbour is a data center campus that would take nearly half a reactor's output. The General Assembly anticipated the objection and capped it: § 56-585.1:14 C limits the annual revenue requirement to what would raise a typical residential bill by no more than **$1.40 per month**.[182] Rider SMR is at about $0.29 against a statutory ceiling of $1.40, which is to say the mechanism has roughly four times its current headroom before anyone has to legislate again.

Loudoun: the demand side legislating about supply

Loudoun removed data centers as a by-right use in **July 2024**, on a 7–2 board vote, as the research memo the note cites records it. The same memo records 18 March 2025 as the date the supervisor's own July 2026 brief gives for ending all by-right data center development; the ordinance record that would reconcile the two dates was not retrieved for this report.[183] The same supervisor who moved that change, Mike Turner, has since put on-site generation squarely into the county's planning vocabulary.

His figures for county data center load are the ones to carry: **4.14 gigawatts actual in 2024, 5.33 gigawatts actual in 2025**, and **233 percent growth across 2020–2025**.[184] His stated projection is 14.2 gigawatts by 2030 on linear progression, with the caveat that artificial intelligence will increase existing demand further.[185]

The framework defines a microgrid in **five elements**: a large power consumer (existing), a power grid connection (existing), an **on-site baseload power source** (new), an on-site backup power source (existing) and an on-site energy storage system (new).[186] Candidate baseload sources named include **blue hydrogen fuel cells**, described as "noise-free; only emission is low level CO2," and **gas turbines** running natural gas or biomass gas.[187] The county's adopted guidance goes further than discussion: "Encourage microgrid design within the data center campus for future use."[188]

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[182] Same, quoting the Commission's finding under Code § 56-585.1:14 C, which caps the annual revenue requirement at what would raise a typical residential bill by no more than $1.40 per month. **[P]**

[183] Loudoun_Research_Grid_v1_0.md §5, recording a 7–2 board vote in July 2024. **[S]**

[184] Same, Turner's slide figures: 4.14 GW actual 2024, 5.33 GW actual 2025, 233 percent growth 2020–2025. **[S] — county primary as reproduced in the research memo.**

[185] Same, quoting the slide directly. **[S[1]] — a supervisor's projection, not a forecast of record. Attribute it to him.**

[186] Same, slide 12. **[S]**

[187] Same. **[S] — the "noise-free; only emission is low level CO2" characterisation is the slide's and should be quoted as such rather than adopted.**

[188] Same, quoting adopted county guidance item 15. **[S]**

Two named projects sit behind the framework. **Spring Valley Technology Park**, Leesburg, where Active Infrastructure proposes to develop **362 acres** into a campus "powered in part by on-site clean energy."[189] And **Green Energy Partners' Stonewall Energy Park**, at Leesburg, by the same developer.[190]

Trade coverage routinely attaches to Stonewall a second project's acreage — **641 acres adjacent to Surry Nuclear Power Station**. That land is 150 miles southeast, in Surry County, and belongs to the Surry Green Energy Center: a separate joint venture with IP3 Corporation, planned as roughly 1 GW of data centers with a hydrogen hub and, over time, four to six small modular reactors of about 250 MW each. The two are distinct projects sharing a developer.[191]

The developer is the link between the two projects, not the site — and it is a third small-modular thread in this report, alongside the Rider SMR at North Anna and Goochland's zoning for a reactor nobody had proposed.

What the three instruments show

Goochland zoned for generation nobody had proposed. The overlay anticipates supply before an applicant exists, which is what pre-entitlement means when it stops describing warehouses and starts describing power plants.

Louisa did the opposite and got the same result. The generation was there first, the load came to it, and the county's instruments arrived third. Adjacency did the work that zoning did in Goochland.

Loudoun is regulating supply through a demand instrument. Having taken data centers out of by-right, the county is now writing microgrid performance standards into data center guidance — which is a county government specifying the acceptable technologies for electricity generation, a subject Virginia otherwise reserves to the State Corporation Commission.

That last point connects this section to section 6. Behind-the-meter generation escapes the Commission because it is not generating for sale. What it does not escape is the county, and Loudoun appears to be the first Virginia locality to notice that the only regulator with jurisdiction over an unregulated power plant is the one that issues its land use permit.

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[189] Same. **[S[1]] — trade press.**

[190] Same. **[S[1]] — trade press; the geographic ambiguity is resolved at note 191.**

[191] Trade and regional coverage of the Surry Green Energy Center, incl. *Virginia Business*, *Data Center Frontier*, World Nuclear News and NucNet, 2023: Green Energy Partners under contract for **641 acres adjacent to the Surry nuclear station in Surry County**, in a joint venture with IP3 Corporation; roughly 1 GW of data centers, a hydrogen hub, and four to six SMRs of about 250 MW each. **[S] — consistently reported across independent outlets; no county land record, rezoning file or corporate filing has been retrieved, and the project has not been traced past 2023.** Stonewall Energy Park is a separate Loudoun County project by the same developer.

9. When the Forecast Fails

Section 2 named this case and left it. It happened outside Dominion's territory, to utilities that meet their capacity obligation without the auction, and that structure determines where the consequence lands.

The forecast that did not arrive, and what it cost

In November 2025 the AEP utilities asked FERC for permission to sell capacity they had bought to serve data centers that never came. The Commission refused.

The Independent Market Monitor states the arithmetic without decoration:

> "AEP's large load addition forecast for 2026/2027 Delivery Year in 2024, was for the addition of **4,639 MW**. AEP reduced that large load addition forecast for the 2026/2027 Delivery Year to **3,888 MW** in 2025. The difference between the two forecasts is **751 MW**. In other words, AEP over forecast large load additions by 751 MW, purchased capacity to serve that load and now wants to dump the resultant excess 750 MW in the PJM Capacity Market while asserting it is for the benefit of the market."[192]

Docket **ER26-444-000**, filed 6 November 2025 by American Electric Power Service Corporation for Appalachian Power, Indiana Michigan Power, Kentucky Power and Wheeling Power — the "AEP FRR Entities." They sought a limited waiver of the tariff cap that limits FRR sales into the capacity market, having already cleared **1,237.3 MW against a 1,300 MW cap** in the 2026/2027 Base Residual Auction. PJM supported the request. The Market Monitor and the PJM Power Providers Group opposed it. **FERC rejected it** on 10 February 2026, finding AEP had not identified a concrete problem.[193]

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[192] Monitoring Analytics, LLC, *Protest, Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM*, FERC Docket No. ER26-444-000, filed 26 Nov. 2025, at 4–5, citing PJM Load Analysis Subcommittee, 2024 Load Forecast Adjustments, 25 Oct. 2024. Deposited primary/ferc/ER26-444_2025-11-26_IMM_Comments.pdf. **[P]**

[193] Same, at 3–5 (the 1,300 MW cap and the 1,237.3 MW cleared in the 2026/2027 BRA); PJM Interconnection, L.L.C., comments in support, filed 21 Nov. 2025, deposited primary/ferc/ER26-444_2025-11-21_PJM_Answer.pdf. **[P]**

The disposition: *American Electric Power Service Corporation*, **194 FERC ¶ 61,101**, Docket No. ER26-444-000, **Order Denying Waiver Request**, issued **10 February 2026**, before Commissioners Swett (Chairman), Rosner, See, Chang and LaCerte. eLibrary accession **20260210-3058**. Deposited primary/ferc/ER26-444_2026-02-10_FERC_OrderDenyingWaiver.pdf. **[P] — the order is retrieved and read.**

This is a reported Commission order, not a delegated letter order, contrary to the trade coverage.

FERC's reasoning is sharper than the protest, and it is the passage to quote. The Commission applies the four-part waiver test — good faith, limited scope, a concrete problem, no undesirable consequences — and finds AEP fails on the third. The finding rests on PJM's own updated planning parameters, of which the Commission took official notice:

> "the **2026/2027 peak load forecast has been revised downward** and … the Pool-Wide Average Accredited Unforced Capacity (UCAP) Factor has increased, resulting in a **UCAP Surplus in the 2026/2027 Third Incremental Auction that is 2,630 MW greater** than in the 2026/2027 BRA … PJM is **not seeking to procure any additional capacity in the 'Rest of RTO' zone**, where the AEP FRR Entities are located."

And then the sentence that states the whole matter:

> "AEP's remaining problem is simply that **AEP finds itself with excess capacity** that AEP is unable to offer in the 2026/2027 Third Incremental Auction **because of its own business decisions that led to the procurement of more capacity than it needed.**"[194]

The Commission adds that having to comply with a tariff "is not a concrete problem that warrants waiver," and points PJM to section 205 if it wants the cap changed.

This is the argument running in reverse, and it is the cleanest instance of it on the record. Everywhere else the argument is that generation is being built for load that has arrived. Here a utility built for load that did not, and the FRR structure means **its own customers hold the position** rather than a capacity market clearing it away. The Monitor's answer to the waiver request is the relevant principle: "FRR entities choose to take on the risks of under and over forecasting and the risks associated with meeting their own load."

Note what the downward revision is and is not. PJM's 2026/2027 peak load forecast came down between the Base Residual Auction and the Third Incremental Auction — a **zone-wide** revision that the Commission relied on, not AEP's own. It corroborates that the demand picture softened; it does not isolate data centers as the cause, and nothing in the order attributes it to them.

Three limits travel with the case. The 751 megawatts is a forecast revision for one delivery year across four utilities in three states, not an Appalachian Power figure or a Virginia figure, and nothing on the record apportions it. The rejection turned on waiver criteria rather than on any finding about forecasting quality. And whether the excess capacity reaches a Virginia retail rate, and through which mechanism, is not established by anything in this docket; that is a base rate case question, and PUR-2026-00044 is open.

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[194] Both passages: same order, at PP 10-11, applying the waiver criteria of *Citizens Sunrise Transmission LLC*, 171 FERC ¶ 61,106 at P 10 (2020), and taking official notice under Rule 508(d)(1) of PJM's 2026/2027 Third Incremental Auction Planning Parameters (23 Jan. 2026). **[P]**

10. What It Costs

On 25 November 2025 the State Corporation Commission issued two final orders. One approved 944 megawatts of new gas generation. The other created the rate class that governs the customers whose growth the first order cited. The pairing is not a coincidence of the calendar, and this report does not treat it as one.

GS-5 is a generation instrument

It is filed as a rate schedule and it functions as a long-term generation procurement contract imposed by tariff.

The class captures customers with **a measured or contracted demand of 25 megawatts or greater on a contiguous site** and a **measured or expected load factor of at least 75 percent**.[195] Those two tests select data centers and almost nothing else.

What attaches:

- A **fourteen-year contract term**, with an optional load ramp of up to four years at a minimum of 20 percent annually.[196]
- **Minimum demand charges** of 60 percent of contracted generation demand, and **85 percent each** of distribution and transmission.[197]
- **Collateral at $1.5 million per megawatt**, reducible up to 70 percent on established credit, released at one-fourteenth per year.[198]
- An **exit fee** covering outstanding minimum charges over the remaining term, which the Commission approved expressly "to ensure that the minimum demand charges approved herein represent a firm contract floor."[199]
- Effective **1 January 2027**, and the contract and collateral provisions apply only to customers taking initial service and signing an electric service agreement **on or after** that date.[200]

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[195] SCC Final Order, Case No. PUR-2025-00058, 25 Nov. 2025, Rate Schedule GS-5. Deposited primary/scc/PUR-2025-00058_2025-11-25_Biennial_FinalOrder_20251125.pdf. **[P]**

[196] Same. **[P]**

[197] Same, Minimum Demand Charges. **[P]**

[198] Same, Collateral Requirements. **[P]**

[199] Same, quoting the Commission's approval of the exit-fee provisions recommended by APV. **[P]**

[200] Same, Contract and Collateral Requirements. **[P]**

A fourteen-year take-or-pay obligation with collateral posted against it is what a generator asks for before financing a plant. Here the utility gets it by tariff, from the customer, in advance.

Two qualifications travel with that 60 percent. It is the *lowest* of the three minimums and travels alone in most accounts of the tariff; distribution and transmission each sit at 85 percent.[201] And the Commission **excluded PJM capacity expense from the minimum generation demand charge**, which narrows what the generation floor actually recovers and matters directly to the question of whether capacity cost is being collected through a different door.[202]

Legacy customers received exemptions on a distinct risk and cost-causation profile, and everyone signing before 1 January 2027 is outside the contract terms entirely.[203] The instrument built to make large load pay for the system it strains reaches only large load that arrives after next January.

The rate case was under appeal as of 24 August 2026. The Retail Energy Advancement League filed a notice of appeal on 22 December 2025.[204]

What the capacity market actually did

The Dominion zone's capacity price rose from $28.92 to $444.26 between the 2024/25 and 2025/26 delivery years, an increase of 1,436 percent. The figure has to be assembled, because PJM's comparison table prints a dash for DOM in 2024/25 and the dash is easy to read as an absence. It is a table convention: that row reports constrained-LDA prices, and DOM was not constrained that year. The report says the constrained set fell "from five LDAs (MAAC, BGE, DPL-S, EMAAC and DEOK) to two LDAs (BGE and DOM)," and unconstrained LDAs clear at the RTO price. Monitoring Analytics prints the number the dash omits: **DOM, 2024/2025 BRA, $28.92**.[205]

A qualification travels with that row. Dominion Energy Virginia "elected the FRR option for the 2022/2023 through 2024/2025 Delivery Years but returned to the capacity market for the 2025/2026 BRA."[206] The DOM *zone* had a published 2024/25 price. **Dominion's**

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[201] Same order, GS-5 terms as approved. **[P]** for the three minimums.

[202] Same: the Commission "approves the Company's proposal to exclude PJM capacity expense from the minimum generation demand charge." **[P]**

[203] Same, legacy customer exemptions. **[P]**

[204] SCC docket PUR-2025-00058, Retail Energy Advancement League, Notice of Appeal, 22 Dec. 2025. Case status "Under Appeal." **[P]**

[205] Monitoring Analytics, *2025 State of the Market Report for PJM*, Table 5-21, "Capacity market clearing prices: 2021/2022 through 2027/2028 RPM Auctions," DOM column: 2024/2025 BRA **$28.92**; 2025/2026 BRA **$444.26**. Constrained-LDA language from PJM, *2025/2026 Base Residual Auction Report*. Deposited primary/imm/ and primary/pjm/. **[P]**

own load did not pay it. The ratepayer-relevant comparison is the utility's fixed-resource-requirement cost against $444.26, and no auction report supplies that.

An increase of 833 percent is often attached to the Dominion zone. It belongs to a different row — **Rest of RTO**, $28.92 to $269.92 across the same two years — and it understates what the Dominion zone did.[207]

The correction cuts both ways. The zone premium was briefer than usually reported, and the increase that produced it was nearly twice the figure usually given.

The Virginia premium lasted one delivery year.

Delivery year	Rest of RTO	DOM total	DOM locational adder
2024/25	$28.92	**$28.92** (unconstrained; Dominion load under FRR)	$0.00
2025/26	$269.92	**$444.26**	$174.34
2026/27	$329.17	**$329.17**	**$0.00**
2027/28	$333.44	**$333.44**	**$0.00**
2028/29	$325.00	**$325.00**	**$0.00**

In 2026/27, 2027/28 and 2028/29 the Dominion zone cleared at the RTO price with a locational adder of exactly zero.[208] The zone was constrained once and unconstrained afterward.

The 2026/27 and 2027/28 auctions both cleared at a cap. In 2026/27 all prices cleared at the cap of $329.17; 2027/28 hit a temporary cap of $333.44, and 809.6 megawatts failed to clear because offers exceeded it.[209] For 2028/29 FERC approved a cap of $325.00 and a

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[206] Monitoring Analytics, *2025 State of the Market Report for PJM*: "Dominion Energy Virginia elected the FRR option for the 2022/2023 through 2024/2025 Delivery Years but returned to the capacity market for the 2025/2026 BRA." Corroborated by PJM, *2025/2026 Base Residual Auction Report*: "Dominion FRR has changed to RPM and therefore the entire Dominion zone is now in RPM." **[P]**

[207] PJM, *2025/2026 Base Residual Auction Report*, comparison table: Rest of RTO $28.92 (2024/2025) to $269.92 (2025/2026), an increase of 833.3 percent. Deposited primary/pjm/. **[P]** The misattribution of that figure to the Dominion zone appears in this author's own earlier files among others; no survey of its wider circulation has been attempted.

[208] PJM Base Residual Auction Reports for 2025/2026, 2026/2027 and 2027/2028, DOM rows. Deposited primary/pjm/. **[P]** For 2028/2029: PJM, *2028/2029 Base Residual Auction Results Report*, 14 July 2026, Table 3, DOM row: resource clearing price $325.00, locational price adder $0.00 (UCAP, $/MW-day). Read 24 Oct. 2026 at pjm.com; not in the deposited archive. **[P]**

floor of $175.00, and PJM's results report of 14 July 2026 shows all prices clearing at the $325.00 cap, with the number of constrained LDAs at zero.[210]

The locational premium that Virginia-specific arguments rest on was a one-year event, and that is worth stating plainly. What persisted is an RTO-wide price that went from $28.92 to about $330 and stayed there through 2028/29. Cost moved, and it moved to every load-serving entity in PJM rather than to Virginia in particular. That is a different argument from the Virginia-specific one, and it is the one the auction reports support.

What the Monitor attributes to data centers

The Independent Market Monitor's 2025 State of the Market Report gives the data center attribution across three auctions:

Base Residual Auction	Revenue increase attributed to data center load	Percent increase
2025/26	$9,332,103,858 (residual)	—
2026/27	**$7,271,197,971**	**82.1%**
2027/28	**$6,497,653,512**	**65.5%**
Combined	**$23,100,955,341**	

The $9.3 billion figure in circulation survives — subtracting the two later auctions from the Monitor's published total leaves $9,332,103,858, confirming it to the dollar. What does not survive is treating it as the whole. **Accounts still citing $9.3 billion understate the Monitor's current position by $13.8 billion**, and the report adds that the total "will continue to grow until the issues associated with the additions of large data center loads are addressed."[211]

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[209] PJM, *2026/2027 Base Residual Auction Report*, 22 July 2025, Executive Summary: "For the 2026/2027 BRA, all prices cleared at the cap ($329.17)." Deposited primary/pjm/. **[P]** PJM, *2027/2028 Base Residual Auction Report*: 809.6 MW UCAP did not clear because offer prices exceeded the temporary price cap of $333.44/MW-day; the same report: "In the 2026/2027 BRA, the RTO cleared at the price cap of $329.17." **[P]**

[210] PJM, *2028/2029 RPM Base Residual Auction Planning Period Parameters*, 12 May 2026, citing FERC Docket ER26-1556; deposited primary/pjm/ as PJM_BRA_Report_2028-2029.pdf. **[P]** The result: PJM, *2028/2029 Base Residual Auction Results Report*, 14 July 2026, Executive Summary: "For the 2028/2029 BRA, all prices cleared at the cap ($325.00)"; "The number of constrained LDAs remained at zero in the 2028/2029 BRA." The cap and floor are $256.75 and $138.25 per MW-day in ICAP terms. Read 24 Oct. 2026 at pjm.com; not in the deposited archive. **[P]**

[211] Monitoring Analytics, *2025 State of the Market Report for PJM*, Vol. 1. Deposited primary/imm/. The 2025/26 figure is the published combined total less the two stated later-year figures; the subtraction is **[I]** and reproduces the $9.3 billion figure in circulation exactly. **[P]** for the published figures.

Three further findings.

The Monitor says the market failed: “The results of the 2025/2026, 2026/2027, and 2027/2028 capacity markets were not competitive.”[212] Flat, in the executive summary, about three consecutive auctions.

The Monitor states but-for causation: “Data center load growth is **the primary reason** for recent and expected capacity market conditions, including total forecast load growth, the tight supply and demand balance, and high prices.”[213] That is the opposite end of the causation question from the Chesterfield order in section 4, and the two are not reconciled anywhere in the record.

And the Monitor rejects the demand-response framing outright, proposing that data centers which do not bring their own new generation be made “curtailable prior to current demand side customers **but without the pretense that the data centers are providing ‘demand response’ for which they should be paid**.”[214]

The queue is being written right now

The biennial review order directed Dominion to file its large-load interconnection queue process in a separate proceeding, on an expedited timeline, on or before 2 February 2026. The Commission’s reasoning is quotable: “the public interest would be supported by a transparent process wherein the rules for the interconnection process of larger loads are subject to examination and approval in a formal proceeding.”[215]

Dominion filed on time. **Case No. PUR-2026-00011**, established 4 February 2026, active, 125 documents.[216] Post-hearing briefs were filed 30 June 2026. Participants include **Amazon Data Services, Verrus, Walmart and Google**. No order had issued as of 23 August 2026.

The rules determining which large loads connect, and in what order, are being settled now, with the hyperscalers at the table and little public attention.

FERC acted on two PJM filings after this report’s evidence date. On 29 September 2026, in Docket Nos. ER26-3380-000 and EL26-108-000, it accepted PJM’s Reliability Backstop Procurement for filing, suspended it for five months to take effect on 28 February 2027 subject to refund, and set a paper hearing on cost allocation, Transmission Owner exit rules

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[212] Same. **[P]**

[213] Same. Emphasis added. **[P]**

[214] IMM 2025 SOM Vol. 1. Emphasis added. **[P]**

[215] SCC Final Order, PUR-2025-00058, Large Load Interconnection Queue. **[P]**

[216] SCC Case No. PUR-2026-00011, established 4 Feb. 2026, status Active, 125 documents as at 23 Aug. 2026. **[P]**

and load-serving entity collateral requirements.[217] On 9 October 2026, in Docket No. ER26-3515-000, it accepted PJM's definition of Large Load and its Large Load Registry, effective 12 October 2026, and rejected PJM's remaining proposed tariff revisions, including its Interim Resource Adequacy Service framework.[218]

Google's brief carries the two details that matter most. Dominion's large-load interconnection process, as the brief describes it, applies to data centers requesting **100 megawatts or more** of contracted service; GS-5 captures customers at **25 megawatts or more**.[219] Two instruments built in adjacent proceedings for overlapping populations, with a threshold four times apart.

And among the criteria Google offers in exchange for fast-track treatment is **"voluntary curtailment without switching to carbon-emitting backup generators."**[220]

Read that against the Monitor. A hyperscaler offers curtailment as a bargaining chip and volunteers not to fire the diesel fleet. The market monitor says curtailment should be an obligation that nobody gets paid for. They are arguing about the same megawatts from opposite ends, four months apart, in different forums, and neither is arguing with the other.

The retail end

Rider CERC is the consumer-facing edge of the first new plant. Section 4 gives the current rate year: **$0.60 per month** for a typical residential customer at 1,000 kilowatt-hours.[221]

The next rate year is filed and it is stated two ways in the same application. Dominion says implementation "will incrementally increase the typical residential customer's monthly bill, based on 1,000 kWh usage per month, by **$0.39**."[222] Its Schedule 3 states the rate directly:

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[217] FERC, Order Accepting Reliability Backstop Procurement and Establishing Further Procedures, Docket Nos. ER26-3380-000 and EL26-108-000, issued 29 Sept. 2026: "we accept the proposed RBP for filing, suspend it for five months, effective February 28, 2027, subject to refund"; the order sets paper hearing procedures on cost allocation, Transmission Owner exit rules and load-serving entity collateral requirements. Copy on PJM's eTariff site, read 24 Oct. 2026. **[P]**

[218] FERC, Order Accepting Tariff Revisions in Part and Rejecting Tariff Revisions in Part, Docket No. ER26-3515-000, issued 9 Oct. 2026: "we accept PJM's proposed Tariff revisions to establish a definition of Large Load and a Large Load Registry"; "We reject PJM's remaining proposed Tariff revisions"; "Therefore, we reject PJM's proposed IRAS framework." Copy on PJM's eTariff site, read 24 Oct. 2026. **[P]**

[219] Google, LLC, Brief Regarding Fast Track Interconnection, PUR-2026-00011, filed 30 June 2026. Deposited primary/pjm_via_scc/. **[P]**

[220] Same. Emphasis added. **[P]**

[221] SCC Final Order, PUR-2025-00037, 25 Nov. 2025. **[P]**

"Rider CERC — Chesterfield Energy Reliability Center (A6) — $0.001141" per kilowatt-hour, which at 1,000 kWh is **$1.14 per month**, against a total residential bill of **$171.71**.[223]

The two are not additive, and the increment does not reconcile with the current rate. A $0.39 increase on top of $0.60 gives $0.99, not $1.14; the increment implies a prior rate of $0.75. The direct figure is the one to use, because it is the one the tariff sheet charges.

On the record to 24 August 2026: sixty cents this rate year, $1.14 as filed for the next. Both are small because the plant is not running yet. The in-service rider will not be small, and $1.47 billion has to arrive on a bill eventually.

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[222] Virginia Electric and Power Company, Application for revision of rate adjustment clause: Rider CERC, for the Rate Year Commencing January 1, 2027, Case No. PUR-2026-00022, filed 3 Mar. 2026, narrative volume. Deposited primary/scc/. **[P]**

[223] Virginia Electric and Power Company, Application for revision of rate adjustment clause: Rider CERC, for the Rate Year Commencing January 1, 2027, Case No. PUR-2026-00022, filed 3 Mar. 2026, narrative volume. Deposited primary/scc/PUR-2026-00022_2026-03-03_RiderCERC_2027_Application_Narrative.pdf. **[P] — retrieved 23 Aug. 2026.**

Conclusion

What the four routes show

Virginia's certification statute was written for one kind of project and now governs one kind of project. Everything else that generates electricity for a data center in the Commonwealth arrives by a road the statute either conditions differently or does not reach.

That is not a claim that anyone designed it that way. Route 1 is demanding because the General Assembly wanted new carbon-emitting generation to be hard. Route 3 was unexamined at this report's evidence date because a definition written when self-generation meant a mill on a river excludes a company that consumes what it makes. Route 4 was unexamined at that date because backup generators were not, historically, a form of generation. The arrangement is an accumulation, not a design. Section 6 records what the Governor has since proposed for Route 3, and section 7 what has since been ordered for Route 4.

And it is not a ranking. The four routes cannot be ordered on a single scale. They are observed at different points in a project's life, through different kinds of evidence, with one worked example each. What can be said is what each route requires an applicant to show, and what the record contains for the projects that have used it.

What follows from it

Three things, stated at the level the evidence supports.

The reliability exception was the smallest channel for exactly as long as one plant had used it. Code § 56-585.1 A 5 c is widely treated as the mechanism by which data center generation gets built, and through 2025 that treatment looked disproportionate: one certificated plant of 944 megawatts against two larger proposals that do not need the exception, a 132-megawatt plant already running that never touched it, and a fleet of eight thousand units outside the Utility Facilities Act entirely. Six months after the first approval the same applicant announced a second plant at 3,000 megawatts and offered the first approval as evidence of the need for it. The channel that had carried the least is on course to carry the most, and the argument for it is the last decision made under it.

The tests that matter are factual, not statutory. Whether route 3 is available to a given campus turns on two questions of fact — does the entity that owns the generation consume the output, and is tenant power metered — and both are answerable from documents a locality already holds. The Commission decided the metering question in a water case in 2004 and the single-affiliate question in a gas case in 2021. Neither has been applied to a data center.

And the demand record is auditable in one place and not in another. Dominion publishes its contract tiers, its methodology, and its submission path to PJM, and this report credits that. What is not reproducible from public information is the step on which the

whole forecast turns: the selection among twenty-seven demand models by "customer intelligence" that no one outside the utility can test. Everything downstream of that step — the capacity, the certificates, the riders, the corridors — is built on a judgment the public record cannot check.

What this report does not settle

Whether the load arrives. Nothing here forecasts. Section 2 reports what is contracted, what is under study, and one case where the difference between the two mattered.

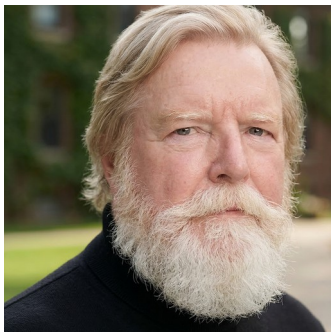
Route 4's utilisation. Permitted non-emergency capacity is documented; hours actually run are not. The Department of Environmental Quality holds site-level emissions data that JLARC used and did not publish, and no filing establishing runtime for the statewide fleet has been retrieved.

Two readings of two statutes. Whether "to the public and is rate regulated" reaches the electricity clause of Goochland's ordinance, and whether the § 56-265.1(b)(3) central-plant route has ever been used in Virginia, are both open. The second is a search that has been run in the wrong place: the notification the statute requires is a letter, and the docket system indexes cases.

Whether the exception carries the second plant. Dominion's Cumberland proposal had no application on file when the Commission's case index was searched on 10 September 2026, so there was then no record to read and no finding to test. Everything this report says about it rests on the announcement and on a county land-use proceeding.

And whether any of this is unusual. This report describes Virginia. Whether the same four routes exist in Georgia, Tennessee or Texas is a question the method here could answer and this report does not.

ABOUT THE AUTHOR



Tommy N. Turner is an independent researcher and writer who documents the local-government and energy dimensions of the data center build-out in Virginia. His series of jurisdiction-level case studies covers the counties and the fall-line corridor where Virginia's data center decisions have been made, refused, or contested, and the analytical volumes extend that work into the systems those decisions run on — the transmission network and the cost-allocation machinery in the first volume, and generation itself here. Like the rest of the series, this volume is assembled from primary records: State Corporation Commission and Federal Energy Regulatory Commission dockets, the Department of Environmental Quality's air-permit register, the federal generator survey, PJM auction reports and interconnection exhibits filed as evidence in Virginia cases, the 2020 legislative record behind the Clean Economy Act including bill versions and committee video, and county ordinances and board minutes. His work spans data center fiscal and environmental policy, local public finance, and the governance questions the two raise, and he writes opinion and analysis on Virginia public affairs for outlets including the *Richmond Times-Dispatch*, the *Virginia Mercury*, the *Virginian-Pilot*, the *Roanoke Times*, *Cardinal News*, and *RTO Insider*. The case studies and analytical volumes are published as open, citable living editions, revised as the record moves. He works from Williamsburg and Christiansburg, Virginia.

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