KEEL INFRASTRUCTURE

DIGITAL POWER WEEKLY

ISSUE NO. 12
July 20 - July 26, 2026

EDITOR
Chris Ruppel
SVP - Power

$811b

ALPHABET CONTRACTED FUTURE SPENDING COMMITTMENTS

$205B

TOP END OF ALPHABET 2026 CAPITAL SPENDING GUIDANCE

3 GW

NORTHERN VIRGINIA DATA CENTER LOAD THAT DROPPED OFFLINE

$9.2B

U.S. UTILITY RATE INCREASE REQUESTS IN Q2 2026

In this Issue

WEEK IN REVIEW

AI's Bill Comes Due

The week focused on three questions within the AI infrastructure debate: (1) who will earn an adequate return on the capital, (2) who will keep the grid stable as gigawatt loads arrive, and (3) who will pay for the generation and wires required to serve them. Alphabet's quarterly numbers started the week and were instructive. Capital spending guidance for 2026 was raised to $195-$205 billion, with $811 billion of contracted future spending commitments while it printed a negative $5.9 billion of free cash flow - the first negative quarterly print since the company went public.

Google Adopts 'Everything, Everywhere All at Once' Strategy: The spending is not speculative in the casual sense. Google is locking in chips, data centers, electricity and supply agreements while developing a Gemini-specific Frozen v2 inference chip that employees project could serve six to ten times more tokens per unit of power than its newest TPUs. It is simultaneously becoming its own power developer: the new Wyoming and Texas projects pair enormous campuses with dedicated generation, including roughly 1.475 GW of gas-fired CAT engine capacity at Intersect Power's Roman Energy Center in Deaf Smith County, TX. The strategic logic is coherent. The financial question is whether monetization can compound as quickly as the obligations.

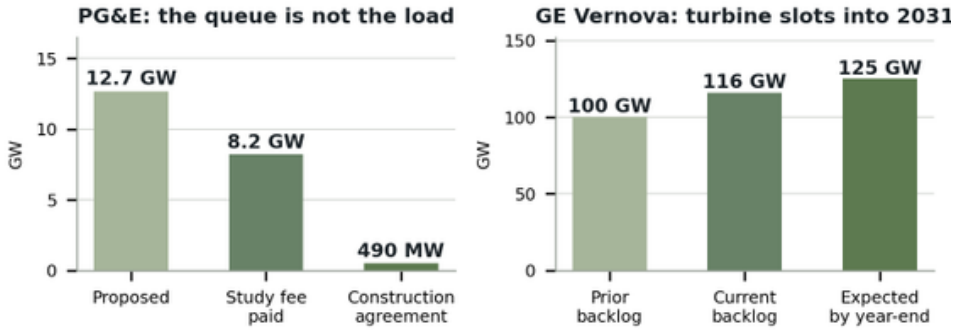
PJM Trips Up with Regulators & Frequency: At FERC's governance conference, Chair Laura Swett said market participants had lost confidence in the RTO and described a grave legitimacy crisis. A day earlier, a Northern Virginia transmission fault caused data centers to transfer to backup power, tripping off roughly 3 GW of demand. The frequency moved up, not down: PJM suddenly had too much generation for the remaining load. It reportedly took about ten minutes to stabilize the system.

The event is the mirror image of the July heat emergency. In the same month, PJM confronted too little supply during peak demand and too much supply when protection systems disconnected large loads together. This week's grid disturbance was roughly twice the size of the 2024 Fairfax event that launched NERC's large-load ride-through work. The protection systems did what they were designed to do for the silicon while the market rules and interconnection agreements have not yet adapted to what simultaneous protection means for the grid.

Ratepayer Protection Pledge: Originally signed in March by seven hyperscalers, expanded this week to 187 utilities, cooperatives and developers and 23 governors — coverage the White House puts at 80% of electricity delivered to U.S. homes and businesses. Signatories commit to build, procure or fund the generation their data centers require and to pay for the interconnection. The pledge is voluntary; the politics are not. Two days earlier the House Energy and Commerce Committee advanced the Ratepayer Protection Act 52-0, directing state commissions to consider making 100 MW-plus loads carry the full cost of the upgrades that serve them. Utilities requested a record $9.2 billion of rate increases in the second quarter, 26% above the prior Q2 high, and moratoria and local restrictions are spreading as communities ask whether AI's private upside will arrive as a public power bill.

Supply Side Expands: PG&E's proposed data center pipeline more than doubled between March and June, from 5.1 GW to 12.7 GW, yet only 8.2 GW has paid an initial study fee and just 490 MW has reached a construction agreement. Upstream, GE Vernova's gas turbine backlog reached 116 GW, up from 100 GW, with roughly a fifth of orders now placed by data center buyers and 2031 production already being reserved. A queue position is a statement of intent; a turbine slot and a construction agreement are the load.

Whether AI ultimately proves profitable enough to justify the spending remains the largest open question in global capital markets. For a reminder that enormous expenditure does not automatically produce performance, consider the New York Mets, on pace to spend $5.2 million per victory - the highest inflation-adjusted cost per win in the League's history. Steve Cohen has had better trades. The jury is still out on AI.

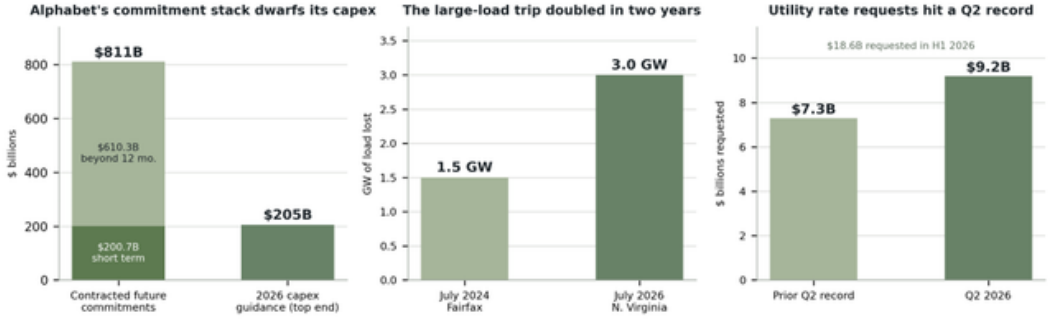


Sources: Bloomberg; Utility Dive; PG&E and GE Vemova disclosures. Charts: Keel Infrastructure.

BOTTOM LINE

The common read-through is that AI infrastructure is moving from ambition to accountability. Capital markets are separating Meta-backed high-grade project debt from CoreWeave-linked high yield; regulators are moving from load forecasting to operating standards; and communities are moving from broad support for investment to enforceable terms on cost allocation, water, emissions and reliability.

★ CHARTS OF THE WEEK | THREE SIGNALS FROM THE AI BUILDOUT



Sources: Alphabet filings; PJM and NERC incident reporting; PowerLines and Axios. Charts: Keel Infrastructure.

The three charts describe one infrastructure cycle from different angles. Alphabet has contracted far more future spending than it intends to spend this year, the coordinated large-load trip in Northern Virginia was twice the size of the 2024 precedent, and the utility investment cycle is already arriving in customer rate cases. The investment case, the operating case and the political case are now inseparable.

★ MARKET SPOTLIGHT | FEATURED ANALYSES

GOOGLE'S $811 BILLION BET

AI spending finally breaks the cash-flow machine

Alphabet's second-quarter results were strong at the operating line - revenue rose 24% and Google Cloud growth accelerated - but investors focused on the capital intensity below it. Free cash flow was negative $5.9 billion, Alphabet lifted 2026 capex guidance to $195-$205 billion, and future contracted spending commitments rose to $811 billion, up nearly $500 billion in a single quarter.

The commitments are separate from the capex budget and include chips, data centers, electricity, inventory and content. That distinction matters. Capex measures what is being spent now; commitments show how much of the future supply chain Google is already reserving. The company is not simply reacting to current demand. It is pre-buying the physical option to remain at the frontier. Alphabet's stock is priced at price to about 25 times forward earnings and has risen more than 80% in the past year, pulling it up to the world's third most valuable public company.

Sources: Alphabet filings; Bloomberg; Wall Street Journal; Financial Times; The Information.

THE COMMITMENT STACK IS LARGER THAN CAPEX

The market is accustomed to treating hyperscaler spending as discretionary because the companies can slow construction if demand weakens. Alphabet's Q2 disclosure narrows that optionality. Roughly $200.7 billion of its $811 billion commitment stack is short term, and the remainder represents a long-duration claim on future cash generation. Investors are therefore underwriting not only this year's build, but the utilization and pricing of capacity already contracted for later delivery. In response to Alphabet's Q2 numbers the Magnificent Seven erased nearly $890 billion in market value, the biggest one-day market cap decline since the tariff turmoil of April 2025. The Nasdaq composite lost 2.2%

EFFICIENCY IS THE STRATEGIC ANSWER TO THE SPENDING QUESTION

Frozen v2 is Google's attempt to change the denominator. The planned inference chip would hard-wire part of Gemini's architecture into silicon, reducing decisions and data movement that general-purpose accelerators must perform. Employees project six to ten times more tokens per unit of power than Google's newest TPUs when the chip could arrive as soon as 2028. The trade-off is architectural lock-in: future Gemini generations must remain compatible with the design assumptions frozen into the chip.

MODEL	SILICON	CAMPUS	POWER
Gemini Frontier models create captive demand and define the architecture.	**TPU + Frozen** Custom accelerators convert efficiency into lower delivered-token cost.	**8M sq. ft. Georgia** Twenty-three buildings make compute an industrial-scale real estate system.	**Roman 1.475 GW** Renewables, storage and gas firming turn electricity supply into a controlled microgrid input.

Google's Georgia campus and the Roman Energy Center in Texas show why the capex debate is fundamentally a power debate. At Roman, Intersect Power (recently acquired by Google) is developing a roughly 1.475 GW gas fleet to firm colocated renewables and storage. The company is moving upstream because a chip reservation is useful only if the rack, cooling system and megawatt arrive in the same window.

TAKE-AWAYS

1. Efficiency becomes capacity creation. A six-to-tenfold tokens-per-watt gain would expand inference output without requiring the same multiple of generation and transmission.

2. Excess capacity gains a market value. The ability to lease compute reduces the penalty for building ahead of internal demand, which can support larger initial campus phases.

3. Power integration lowers execution risk. Control over generation, storage and campus design reduces exposure to utility queues, but adds fuel, permitting and community obligations.

4. Merchant TPUs become more credible. If Google externalizes its efficient silicon through neoclouds and financial backstops, power savings can become a customer acquisition tool rather than only an internal margin advantage.

SCENARIO READ-THROUGH

SCENARIO	MARKET SIGNAL	INFRASTRUCTURE EFFECT
AI revenue catches capex	Cloud and search monetization outpace depreciation	Google preserves premium valuation and keeps reserving power early
Efficiency wins first	Frozen and TPU gains lower cost per delivered token	Compute growth continues while marginal MW requirements moderate
Utilization lags	Free cash flow stays negative and commitments look excessive	Campus phasing slows; merchant capacity and partner leases increase
Architecture shifts	Gemini design changes faster than Frozen can adapt	Specialized silicon loses value and general-purpose accelerators regain share

WHAT TO WATCH

The decisive evidence will be disclosed AI revenue, sustained Cloud margins, utilization of new campuses, the commercial structure for third-party TPUs and whether 2027 capex rises toward consensus expectations near $257 billion. Bottom line: Google has the balance sheet to keep spending, but the market has moved from rewarding ambition to demanding cash conversion.

Sources: Alphabet; Bloomberg; Wall Street Journal; Financial Times; The Information; DCD; Intersect Power reporting.

PJM: BOTH SIDES OF THE LOAD CURVE

A governance crisis meets large-load physics

PJM's institutional and operating problems converged in the same week. FERC Chair Laura Swett told conference participants that stakeholders had lost confidence in the RTO, the collaborative spirit behind the market was fracturing and some transmission owners were openly discussing departure. Federal officials criticized PJM for failing to deliver enough generation at an affordable price and for opaque decision-making.

3 GW	10 min	2x	67M
Load that left the grid within minutes	Reported time for system stabilization	Approximate size versus the 2024 Fairfax event	People served across the PJM footprint

THE JULY 22 EVENT WAS THE MIRROR IMAGE OF A GENERATOR TRIP

A Northern Virginia transmission-line fault caused data centers to transfer automatically to UPS and backup power. PJM and Yes Energy data showed roughly 3 GW of load disappearing between about 7:55 and 8:00 a.m. The sudden reduction in demand created an area-control error and pushed frequency above target. Losing generation creates under-frequency; losing load creates over-frequency and over-voltage because generation must be backed down quickly.

The data centers' protection systems worked as designed to protect tens of billions of dollars of silicon. The system-level gap is coordination. Large loads are not generally required to ride through voltage sags in the way generators are, and Dominion's interconnection arrangements did not prevent many facilities from responding to the same disturbance in the same direction at the same time.

THE 2024 PRECEDENT DID NOT CLOSE THE GAP

The near-identical July 2024 Fairfax event removed roughly 1.5 GW when about 60 data centers tripped after a 230 kV fault. That incident launched NERC's Large Loads Task Force and the ride-through workstream. The 2026 event was roughly twice as large and occurred two years into the policy discussion. The lesson is it is that protection, telemetry and grid response must be engineered as one system.

TAKE-AWAYS

1. Large loads become grid resources and grid risks. A 3 GW load block is operationally comparable to a major generation contingency, whether it is curtailing by instruction or tripping automatically.

2. Ride-through will become a commercial requirement. Future interconnection agreements are likely to specify voltage tolerance, staged transfer, telemetry and return-to-grid protocols.

3. UPS and BESS move from backup to interface. Crusoe and ON.energy are already deploying systems designed to ride through faults while preventing internal GPU swings from reaching the grid.

4. Governance reform will shape procurement. PJM cannot solve the operating problem without credible rules, and it cannot solve the capacity problem if stakeholders no longer trust the process.

SCENARIO READ-THROUGH

SCENARIO	MARKET SIGNAL	INFRASTRUCTURE EFFECT
Mandatory ride-through	PJM and NERC impose technical standards	UPS/BESS controls, relays and campus commissioning become interconnection scope
Coordinated backup transfer	Loads switch on dispatch or staged protection	Backup generation becomes a reliability product rather than an isolated asset
Governance compromise	Stakeholders agree before FERC intervention	C&M, RBP and large-load rules move through a more credible process
FERC-imposed reform	PJM misses the deadline or parties remain divided	Federal rules accelerate, litigation risk rises and state exit threats intensify

THE POWER ARCHITECTURE IS THE BUSINESS MODEL

A merchant-compute strategy works only if the underlying megawatts are controllable. Louisiana's structure links Meta-funded infrastructure, a dedicated utility generation build, outside project equity and long-duration compute demand. The physical campus is therefore both a production asset and a capacity inventory. Power is not merely a data center input; it is the commodity that makes the resale option possible.

The community economics need to be part of the same architecture. Meta has agreed to bear energy, water and related infrastructure costs, and construction-linked tax revenue has produced teacher bonuses of as much as $50,000 in Richland Parish. Those benefits do not eliminate ratepayer and environmental scrutiny, but they show how a project can convert private infrastructure spending into a local political asset. Given the high level of community concerns in PJM, similar structures may be required.

WHAT TO WATCH

Watch for a formal NERC incident report, PJM's ride-through filing, Dominion tariff changes, large-load telemetry requirements and FERC's governance deadline. Bottom line: PJM is no longer managing only a capacity shortage. It is managing a new class of electronically protected load whose behavior can move the entire interconnection in seconds.

Sources: FERC; Bloomberg; Reuters; DCD; PJM and Yes Energy data; Dominion Energy; NERC 2024 incident reporting.

THE RATEPAYER BARGAIN

Build it - but do not send households the bill

The Ratepayer Protection Pledge is the White House's answer to a rapidly hardening political constraint. More than 220 utilities, technology companies, states and other partners have signed, and the administration says the participants cover about 80% of electricity delivered to U.S. homes and businesses. Data center owners and users promise to pay above normal rates or directly fund the generation and grid upgrades required by their projects.

$9.2B Q2 utility rate increase requests	**56M** Customers affected by Q2 requests	**4%** June electricity-price increase year over year	**80%** Share of U.S. power deliveries covered by pledge signers

THE PLEDGE IS A POLITICAL SIGNAL, NOT YET A TARIFF

The initiative is non-binding and difficult to audit. Utility rates are set through state proceedings, while many grid investments serve both the new customer and the broader system. The real implementation will occur through minimum bills, take-or-pay structures, collateral, exit fees, direct-assignment rules, special tariffs and utility commission findings about who caused which cost.

THE BILL IS ALREADY MOVING

Electric and gas utilities requested $9.2 billion of increases in the second quarter, above the prior Q2 record of $7.3 billion, and $18.6 billion in the first half. Investor-owned utilities are planning at least $1.4 trillion of capital spending through 2030. Power-plant construction costs are up more than 10% in a year, equipment backlogs extend into the 2030s and June electricity prices rose 4% from a year earlier, faster than overall inflation.

Data centers are not the sole cause. Fuel recovery, wildfire hardening, storm resilience, aging assets, industrial growth and population also matter. The political problem is timing: city-scale AI loads are arriving when bills are already rising and when utilities are asking customers to finance the largest grid buildout in a generation.

BACKLASH IS BECOMING A PROJECT-LEVEL CREDIT VARIABLE

New York imposed a one-year pause on the largest data centers, Data Center Alley's Loudoun County is exploring ways to slow new applications, and more than a dozen states have considered similar restrictions. Polling cited by The New York Times found common opposition among Democrats and Republicans to nearby data centers, with power bills, noise, pollution, water and land use all in the frame. OpenAI's 3.2 GW Georgia campus shows the emerging model: rate guarantees, curtailment commitments, closed-loop cooling, $80 million of community benefits and independent auditing.

TAKE-AWAYS

1. Cost allocation becomes site selection. Projects in jurisdictions with clear large-load tariffs and enforceable direct-assignment rules should move faster and finance better.

2. Community benefits become operating obligations. Tax revenue, schools, workforce funds, water commitments and auditing are moving from public-relations add-ons into the approval package.

3. Behind-the-meter power gains political value. Self-funded generation can reduce grid cost exposure, but emissions, gas infrastructure and local air-quality impacts remain visible.

4. Ratepayer protection becomes bipartisan. The policy language will differ by party, but both sides increasingly require proof that households are insulated from hyperscaler demand.

BOTTOM LINE

The pledge will matter only when it changes utility contracts and commission orders. But its existence is already a market signal: the right to consume gigawatts increasingly depends on proving that the customer can finance the megawatts, protect the ratepayer and leave the host community better off.

Sources: White House; Bloomberg; New York Times; Wall Street Journal; PowerLines; Bureau of Labor Statistics; OpenAI and local disclosures.

WEEKLY ROUNDUP

THIRTY STORIES, ONE PHYSICAL STACK

The week's top stories, itemized

1. OpenAI writes a community contract in Georgia: The company announced a 3.2 GW Savannah-area campus phased from 2028 to 2032, with closed-loop cooling, residential-rate protections, pre-residential curtailment, $80 million of community benefits and up to $71 million of Codex credits for Georgia college students. The structure treats community commitments as part of the power architecture. (Axios, July 22)

2. Hut 8 fully leases Beacon Point: A second 352 MW, 15-year lease brings the Texas campus to 704 MW of contracted IT capacity against 1 GW of utility service. Base payments total $19.6 billion across both leases, with 3% escalators and renewal options that could lift campus contract value above $50 billion. Power-first development has become long-duration infrastructure finance. (The Tech Capital, July 26)

3. PG&E pipeline doubles - but the queue is not the load: Proposed data center demand rose from 5.1 GW in March to 12.7 GW in June. Twenty-six projects totaling 8.2 GW have paid an initial study fee, but only four projects totaling 490 MW have construction agreements. California may have more available capacity than assumed, yet conversion remains the relevant denominator. (Bloomberg, July 23)

4. xAI scouts a second gigawatt platform: The company is exploring large Texas campuses comparable to or larger than its roughly 1 GW Memphis footprint. First-quarter AI capex reached $7.7 billion and analysts projected $120 billion of 2026-27 cash burn. Gas turbines, APR Energy ownership and a permanent Solaris-backed plant make power integration central to the expansion. (The Information, July 22)

5. Meta project debt tests investment-grade appetite: BlackRock began marketing $12.3 billion of 2048 high-grade bonds for a 1 GW Meta campus in El Paso. BlackRock affiliates own 80% of the project and Meta 20%; the SPV debt is backed by Meta lease commitments. Initial pricing was about 287.5 basis points over Treasuries as investors absorbed another jumbo AI financing. (Bloomberg, July 24)

6. Galaxy brings CoreWeave to the junk market: Galaxy is seeking about $3.5 billion at roughly a 9% yield for the Helios campus in West Texas. CoreWeave has 15-year leases expected to generate more than $1 billion of annual revenue. The contrast with Meta-backed high-grade debt shows how tenant credit and structure, not the AI label alone, determine financing cost. (Bloomberg, July 22)

7. Oracle becomes the credit-market AI barometer: Five-year CDS rose to about 203 basis points, the highest in data back to 2008, while long bonds widened and S&P cut the company to one notch above junk. Oracle is spending into the gap between contracted revenue and cash required today. The AI capex cycle now has a visible fallen-angel boundary. (Bloomberg, July 20)

8. Private-credit wraps revive the financial-engineering debate: Insurers and asset managers are repackaging private-credit exposures into rated bonds and using guarantees to reduce capital requirements. The bullish interpretation is broader funding capacity; the bearish interpretation is that structure can disguise tenant and residual-value risk. Data center finance is becoming complex enough that transparency itself carries value. (Bloomberg Opinion, July 21)

9. Nordic high yield finds its limit: PolarDC raised a record EUR800 million, but Prime Data Centers cut a planned bond from $600 million to $500 million and then shelved it, while Pure Data Centres moved to bank financing. Investors are not rejecting AI infrastructure; they are rejecting structures they cannot price, including subordination and uncertain sponsor economics. Like Elvis, Wall Street is still the king. (Bloomberg, July 22)

10. BlackRock and MGX add $5 billion to Aligned: The consortium closed its $40 billion acquisition and committed another $5 billion to expand a platform with more than 6.4 GW of operating and planned capacity. The transaction reinforces the private-capital premium on scaled developers that already control power, cooling and delivery capability. (Bloomberg, July 21)

11. AMD buys into Anthropic demand: AMD agreed to invest up to $5 billion into Anthropic while Anthropic may deploy as much as 2 GW of MI450 accelerators beginning in 2027. The arrangement strengthens AMD against Nvidia but also deepens the circular-capital pattern in which chip suppliers finance the customers that will buy or lease their capacity. (Bloomberg, July 22)

12. Etched prices specialization at $10.3 billion: The inference-chip startup raised $300 million, more than doubling its valuation, after reporting more than $1 billion of customer contracts. Its architecture separates prefill and decode and targets lower voltage, heat and memory latency. The bet is that model-specific inference can outrun general-purpose accelerators on delivered-token economics. (DCD, July 24)

13. Samsung wins a $200 billion Broadcom order: The five-year agreement through 2030 covers 2-nanometer and below foundry technology, memory and advanced packaging for next-generation AI accelerators. The scale makes custom silicon a manufacturing ecosystem, not just a chip-design story, and gives Samsung a path to challenge TSMC across foundry and packaging. (Bloomberg, July 25)

14. Intel data center demand rebounds before foundry proof arrives: Quarterly results beat expectations and data center sales rose 59%, with management saying CPU demand is outpacing supply as inference broadens the hardware stack. The unresolved issue is external foundry customers: Intel is increasing capital spending without yet disclosing the large anchor contracts needed to validate the manufacturing strategy. (Bloomberg, July 23)

15. China turns chip substitution into state policy: Huawei says it can approach state-of-the-art performance without leading-edge tools, while Morgan Stanley data show foreign dependence falling from about 90% in 2021 to below 60% in 2025 and potentially 25% within five years. Export controls have not stopped investment; they have accelerated a sovereign silicon stack. (Wall Street Journal, July 23)

16. Nvidia takes 9.3% of Nebius: The disclosed stake follows a $2 billion investment and cooperation on fleet management, inference and AI-factory design. Nebius shares have risen nearly 250% in a year, and Meta has agreed to spend up to $27 billion on its infrastructure. Nvidia is using equity to reinforce demand and shape the neocloud channel. (CNBC, July 21)

WEEKLY ROUNDUP

17. Microsoft and Mistral build sovereign European compute: Microsoft will invest multiple billions in European AI infrastructure, including thousands of Nvidia Vera Rubin GPUs shared with Mistral for training and inference. The models will run across Azure public cloud and disconnected Azure Local deployments, linking sovereign-data requirements to another large block of accelerator and power demand. (DCD, July 22)

18. GE Vernova sells turbine slots into 2031: The gas-turbine backlog reached 116 GW, up from 100 GW, and about 20% of customers are data-center buyers. The company is already reserving 2031 production and expects orders plus slot reservations to reach 125 GW by year-end. A turbine position is becoming a development asset comparable to an interconnection position. (Utility Dive, July 23)

19. Pantheon Electric consolidates the copper bottleneck: The Olympus-backed supplier expects revenue near $2 billion, up roughly 35%, and is pursuing acquisitions in conductors, transformer components and cooling systems. AI campuses and grid upgrades are turning busbars, cable and conductive infrastructure into a scaled industrial roll-up opportunity. (Bloomberg, July 23)

20. Venture capital goes nuclear: Aalo is raising after a $100 million Series B, Valar is seeking about $1 billion at a roughly $5 billion pre-money valuation and Helion raised $465 million at a $15 billion pre-money value. Venture investors are pricing late-decade firm-power optionality even though revenue, licensing and deployment timelines remain uncertain. (The Information, July 21)

21. Crusoe makes the UPS a grid interface: Crusoe will deploy 5 GW of ON.energy medium-voltage AI UPS systems through 2027. The design sits between source and data hall, rides through voltage faults without disconnecting and prevents GPU load swings from reaching the grid. The July PJM event makes that architecture look less like backup equipment and more like a system requirement. (DCD, July 22)

22. Plug Power monetizes stranded interconnection value: Plug is selling its Graham, Texas hydrogen site to Stream for $50 million at closing plus up to $26.5 million tied to final load capacity, while releasing about $14 million of collateral. Together with an amended New York transaction, the deals could provide roughly $90.5 million of liquidity and recycle power-ready industrial land into data center inventory. (DCD, July 15)

23. Loudoun considers a pause and an exit plan: Supervisors are studying ways to slow new applications while adding generator-emissions rules and future decommissioning requirements. The county attorney questioned whether a formal moratorium is legal, but the policy direction is clear: the center of Data Center Alley is moving from growth management to lifecycle regulation. (Loudoun Now, July 23)

24. The factory rebound runs into the same power wall: Manufacturing indicators, rail carloads and less-than-truckload rates point to a broader industrial recovery across aerospace, pharmaceuticals, chips, defense and energy. The constraint is familiar: regions seeking factories need more electricity capacity and trained workers. Data centers are both a source of demand and an early warning for the rest of the reshoring cycle. (Bloomberg Opinion, July 23)

27. Tenaska files 1,540 MW into PJM's shortfall: Tenaska submitted its Certificate of Public Convenience and Necessity on July 15 for the Expedition combined-cycle station in Fluvanna County, Virginia, specifying either GE Vernova 7HA.03 or Mitsubishi 501JAC machines and a Transco gas agreement. Total capitalized investment is $2.4 billion, roughly $1,558/kW, split between $950 million of equipment and procurement and $1.4 billion of construction and development. The schedule runs interconnection in Q1 2027, permits in Q2, construction in Q3 and commercial operation in Q4 2031. Read alongside Traceview, the two filings bracket current combined-cycle costs at roughly $1,550 to $1,860 per kilowatt — and both arrive after the 2028/29 delivery year. (Tenaska CPCN filing, July 15)

28. Anthropic doubles its midterm spending to $40 million: Anthropic committed a further $20 million to Public First Action, a group pressing for mandated safeguards on frontier models and developer disclosure of risk. The opposing network, Leading the Future, backed by an OpenAI co-founder and Andreessen Horowitz among others, has reported raising about $75 million; Public First reported $80 million at the end of June. Critics contend Anthropic is pursuing rules that would handicap competitors. Model regulation is a power variable: release timing, access controls and compliance obligations move where and when inference load is served. (Wall Street Journal, July 22)

29. Federal research money reorients around AI: A new Office of Science and Technology Policy report, paired with a memo from Michael Kratsios, director of the White House Office of Science and Technology Policy, and Russ Vought, director of the Office of Management and Budget, directs agencies to favor individual investigators and AI-native research over institutional grants, reshaping roughly $200 billion of annual federal R&D. The guidance restates national targets including a powerful quantum computer by 2028 and ten large nuclear reactors under construction by 2030, and points to the Energy Department's Genesis Mission as the template. Skeptics note that models err and that privileging AI narrows the questions researchers ask. Federal science funding is being rebuilt around compute, and therefore around electricity. (Wall Street Journal, July 21)

30. Demand charges create a distributed storage business: David Energy is placing free plug-in batteries in New York City small businesses, charging them overnight and discharging at peak to cut 3% to 5% from monthly bills while keeping the arbitrage margin. Because the batteries never export, the company sidesteps Fire Department permitting that slows conventional virtual power plants. Nearly 1,500 units are installed at 150 businesses since December, with contracts for 2,000 more. Demand charges run close to half a restaurant's bill. The economics that justify behind-the-meter storage at gigawatt scale work similarly at a 45-seat restaurant. (Bloomberg, July 25)