DATA CENTERS

BI-WEEKLY UPDATE

October 20, 2025

FRESH COAST
Climate Solutions

Bold Solutions. Transformative Action.

EMERGING THEMES

Investments

Continued State & Big Tech Investments

- States like PA continue to offer incentives for data center (DC) developers and offer access to cheap natural gas
- Meta continues to build out massive $10Bs in data centers, including in high water risk areas
- OpenAI makes major investments in AI/chip infrastructure

Investment Risk & Timeline

- AI products unlikely to hit $1 trillion+ in revenue to break even with data center expenditures to date
- At local level, legal battles (Saline Township) and moratoriums (St. Charles, MO) delay or threaten ROI

Technology

Computing Speed & Efficiency

- Technology investments continue to prioritize computing speed and efficiency
- Projections for increased computing power density/rack at data centers mean overall electricity usage/data center site could continue to increase

Renewables

- Bloom Energy secures more investment for hydrogen fuel cell tech to advance clean energy and grid reliability

Legislation & Market Development

Market Dynamics

- Consolidation of data center ownership by big tech and private equity could drive up costs and limit access for smaller companies seeking computing capacity
- Utilities, power generators, regulators, policymakers face pressure to adjust rates and incentives

Awareness & Pushback

- Moratoriums on new data center construction (MO) and proposed ballot initiatives (MI)
- Township zoning battles (Pavilion, Ypsilanti)
- Community Benefit Agreements being pursued to balance developer and community interests

Enviro/Social/Economic Impacts

Environmental Costs:

- Increased concern/reporting on potential risks of PFAS contamination due to data centers
- Despite recent MN legislation on data center water disclosure, local groups/NGOs think there is still not enough transparency and consideration of impacts
- Example of increasing land/water use by industrial ag and data center development; need for policy that can handle both (WI)

Economic Costs

- Continued scrutiny of electricity cost increases due to data centers and ROI of offering up tax incentives

CATEGORIES OF NEWS UPDATES

Bi-weekly, Fresh Coast summarizes the latest data center industry news and assesses potential impacts across key categories for Joyce Foundation

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Investments*

Article/Link	Summary	Potential Impact
PA's $70B Race for Data Centers	**10/16/2025 (PA):** Pennsylvania's $70 billion initiative to position itself as a national leader in AI data centers continues by offering incentives to infrastructure developers and leveraging natural gas reserves. The state's plan is driven by private investment with focus on expanding power infrastructure, grid capacity, and workforce training rather than direct data center funding. Major tech and energy firms (including Amazon, Blackstone, Google, and CoreWeave) have committed billions to new data center projects and energy partnerships. Pennsylvania's natural gas dominance provides a reliable, cost-effective power source to meet energy demands.	**High** – PA incentivizes private industry to build infrastructure and renew former industrial sites to support DCs; focus on economic benefits and use of natural gas deprioritizes climate concerns
Blackrock buys Aligned Data Center for $40B	**10/16/2025 (National):** In the largest data center transaction so far, Blackrock is purchasing Aligned Data Centers for $40 billion. The author argues that consolidation of compute infrastructure capacity by private equity and big tech firms means these owners have greater pricing power and that data center users have to fight to get access and contend with higher leasing costs. Corporate IT leaders are having to compete with large tech firms who secure capacity years in advance for their hyperscalers. (See also "Financing the Future: Trends in 2025 Data Centre Investment.")	**High** – Industry consolidation of DC capacity may make it difficult and more expensive for smaller companies to access data centers
$1.6B DOE Loan for AEP Transmission	**10/16/2025 (IN, MI, OH, OK, WV):** U.S. DOE finalized a $1.6 billion loan guarantee to American Electric Power (AEP) to rebuild and upgrade 5,000 miles of transmission lines across Midwestern states to satisfy manufacturing and data center demand. The funding is part of the Energy Dominance Financing Program and aims to modernize grid infrastructure, improve reliability, and lower electricity costs. AEP projects will begin in Ohio and Oklahoma. The project is expected to create 1,100 construction jobs and save customers about $275 million over the lifetime of the loan.	**High** – Grid infrastructure upgrade aims to improve grid reliability and lower energy costs, but renewable integration not a key focus
Meta's 1 GW Data Center in TX	**10/15/2025 (TX):** Meta is investing over $1.5 billion to build a gigawatt-scale data center in El Paso, Texas. The facility is set to open in 2028 and will power advanced computing chips for Meta's AI products. Meta has a growing portfolio of large projects, including "Hyperion" in Louisiana and "Prometheus" in Ohio. Meta has also extended its partnership with Arm Holdings to co-develop more efficient and powersaving data center chips, based on Neoverse.	**Medium** – Meta invests in its own AI computing power and with more energy efficient chips; but risks prioritizing power and speed over enviro/social concerns
795 Acre IL Data Center	**10/6/2025 (IL):** A large data center is proposed on 795 acres of farmland in Joliet, Illinois, 40 miles southwest of Chicago. It would be developed by HW Technology Park Development LLC. The project includes 24 buildings and a ComEd substation on site, with that cost covered by HW Technology. Key details such as electricity and water consumption and total capacity are still under review. The Joliet Plan Commission will soon discuss an annexation agreement, with construction expected to begin in 2027.	**Low** – Information shared on DC development ahead of city commission vote; city raises key concerns to address in development agreement

Article: "Why the biggest risk in AI might not be the technology, but the trillion-dollar race to build it"

Dakin Campbell, Business Insider – 10/7/2025

Mainstream media is reporting major themes of data center industry growth, its impacts, and potential risks

- Data Center construction boom is comparable to the space race, interstate highway system, and national railway build out; some industry executives and consultants think the industry is just getting started
  - $320B in 2025 for new data centers by Amazon, Meta, Microsoft, Google
  - $1T+ in new data center build outs through 2028 by Meta, OpenAI, Oracle, Amazon
  - 1,240 existing data centers identified by Business Insider; 4x growth since 2020; ~2 new data centers in US every week
  - BUT, the business case for AI is untested; AI build out cost > AI product revenue; recently AI models have made incremental improvements
  - Risk of overinvestment and market contraction/company and stock market collapse are possible outcomes
- NDAs and "trade secret exemptions from FOIA requests pose challenges for local residents and researchers to get information on data center build outs, energy and water usage, and other potential impacts
- Liquid cooling tower fans emit ambient noise and vibration; this chronic noise exposure is concern for residents living near data centers and is regulated by local ordinances
- Up to 43% of data centers are located in regions of high/extremely high water stress in US
  - Microsoft, Google, Amazon, Meta aim to be water positive (restore/save more water than they use) by 2030, but this depends on water offsets or credits – paying others to save/mitigate water usage by others on tech giants' behalf
- AI industry and utilities are backtracking on clean energy/climate goals – keeping coal plants open, building new natural gas plants, reopening nuclear plants – while building out new renewables
- Data center integration costs are being passed onto customers:
  - PJM updates cost increase of $103B due to data centers
  - Dominion Energy expects residential bills to increase 2.7% a year, or 50% over the next 15 years due to data centers and the need for carbon-free power per Virginia's Clean Economy Act
- 37 states offer tax incentives for data center equipment and development

Technology

Article/Link	Summary	Potential Impact
OpenAI's Dominance	**10/11/2025 (National):** OpenAI has quickly become a dominant force in tech, expanding beyond ChatGPT into massive infrastructure deals with Nvidia, AMD, Oracle, and Broadcom. OpenAI is now valued at around $500 billion. OpenAI's data centers, chips, apps, and hardware have reshaped the competitive landscape and contributed heavily to fueling the boom in data center technology.	**High** – OpenAI accelerates global data center growth and demand for chips, energy, and cooling tech; risks prioritizing power and speed over local environmental and social concerns
NYU's Torch Super-Computer	**10/8/2025 (NY):** New York University (NYU) has launched the Torch supercomputer, which is powered by Intel Xeon Platinum 8592 central processing unites (CPUs) and 500+ Nvidia H200 graphics processing units (GPUs). It's now New York State's most powerful high-performance computing (HPC) system and is five times faster than its predecessor. The system will be used to support AI, climate, and biomedical research. Torch ranks 40th on the "Green500 list" of supercomputers, due to its liquid cooling system that improves energy efficiency.	**Medium** – New Torch supercomputer enhances speed and energy efficiency; life cycle impacts of replacing computing equipment needed
2025 OCP Global Summit	**10/13/2025 (National):** At the 2025 Open Commute Project (OCP) Global Summit, major tech firms unveiled innovations supporting next-generation AI and HPC data centers. This included Nvidia's 800-volt direct current (VDC) rack designs to handle growing GPU power needs. Vertiv, ABB, and ROHM introduced complementary cooling solutions. Astera Labs, Arrcus, and QCTare advancing open networking and rack scale standards with "AI Infrastructure 2.0." Accelsius launched high-efficiency two-phase liquid cooling systems. Flex revealed modular gigawatt-scale platforms combining power, cooling, and compute power for more efficient deployments.	**Medium** – Continued data center tech advancements towards higher efficiency, density, and modular infrastructure; still risks prioritizing computing power and speed over enviro/social concerns
Oracle AI & Bloom's $5B for Data Center Fuel Cells	**10/13/2025 (National):** Bloom Energy has partnered with Brookfield Asset Management in a deal up to $5 billion to supply fuel cell technology for AI data centers, building on a previous agreement with Oracle. The collaboration aims to develop advanced AI facilities with on-site power that is more reliable to help address grid capacity limits and energy demand.	**Medium** – Fuel cell integration at DCs shows promise to lower carbon emissions and enhance grid reliability

Legislation

Article/Link	Summary	Potential Impact
Community Benefit Agreements	**10/15/2025 (National):** Community Benefits Agreements (CBAs) between developers and local stakeholders address workforce, environmental, and infrastructure concerns in exchange for local support. CBAs can reduce project risk by streamlining permitting, ensuring access to skilled labor, and aligning political and financial interests. Effective CBAs are enforceable, inclusive, and tailored to community priorities and are recommended for facilitating data center projects.	**High** – CBAs help developers deliver projects while building community trust. Enhances both project reliability and long-term local benefits
State AGs Scrutinize Renewable Energy Claims	**10/9/2025 (National):** Sixteen states are investigating Amazon, Google, Meta, and Microsoft over "unbundled" renewable energy certificates (RECs), which may mislead consumers about emissions reductions. Officials worry that this practice in combination with rising AI data center demand contributes to plant shutdowns and grid instability. While the companies increasingly use long-term renewable contracts, this could prompt stricter Scope 2 emissions claims rules.	**High** – Stricter emissions claiming rules could lead to tighter regulations and ESG reporting standards that may improve grid reliability, consumer trust, and renewable energy transition
Ballot Initiative to Block a Data Center	**10/15/2025 (MI):** Residents of Augusta Charter Township, Michigan, are mobilizing to block a proposed 822-acre data center through a 2026 ballot initiative. The facility, supported by the township board and developer Thor Equities, would include at least five large buildings on farmland and wetlands and is projected to consume up to 1 million gallons of water daily. Opponents organized as Protect Augusta Charter Township (PACT) are concerned with environmental impacts, utility costs, noise, light pollution, and the loss of rural character. The group gathered enough signatures to trigger a special election referendum.	**Medium** – Ballot initiative highlights growing community engagement and pushback on data center developments
Talen Seeks Rezoning in PA	**10/8/2025 (PA):** Talen Energy is seeking to rezone 1,300 acres of agricultural and public land in Montour County, Pennsylvania. The rezoning could support co-located or separate data center and power projects. Some of the land borders the Montour Preserve, raising ecological and recreational concerns among local environmental groups. Talen has prior data centers development experience, including a 960 MW campus sold to AWS in 2025 with energy supplied through a long-term nuclear power purchase agreement (PPA).	**Medium** – Data center rezoning poses risks to nearby natural habitats, highlighting tensions between local environ and econ development
Backlash Against Proposed MI Data Center	**10/8/2025 (MI):** Pavilion Township, Michigan, is considering a zoning change to allow data centers in industrial districts. Local residents have organized in opposition with concerns about high energy and water use, environmental impacts, and limited local job creation. Township officials have postponed a decision until November to hold further community meetings. Franklin Partners real estate firm is already exploring a potential data center on the property.	**Low** – Rezoning proposal spurs community pushback; highlights tensions between economic development and community/environmental concerns

Research

Article/Link	Summary	Potential Impact
Energy Efficiency Reduces Demand & Bills	**10/7/2025 (NY & New England Region):** A report by the Acadia Center finds that energy efficiency programs across the New England area and New York are saving billions on electricity bills and significantly reducing peak energy demand (despite increasing energy demand from data centers). The seven states plan to invest nearly $10 billion in efficiency measures, projected to yield about $19 billion in lifetime benefits and save 700 trillion Btu of energy. Acadia Center urges states to standardize data reporting to strengthen the program's impact and improve coordination.	**High** – Energy efficiency programs continue to lower costs, cut emissions, and ease grid strain; stronger collaboration and consistent reporting could enhance both econ and enviro benefits
US Power Bills Rising	**10/4/2025 (National):** U.S. electricity prices have risen over 30% since 2020 due to increasing energy demand, volatile fuel markets, tariffs, inflation, and grid infrastructure delays. These rising costs are hitting lower- and middle-income households hardest. While short-term prices are expected to keep climbing, long-term projections suggest that renewable energy, electrification, and efficiency improvements could reduce overall household energy spending. Policymakers can further ease the burden on ratepayers through assistance programs and faster investments in clean energy and grid upgrades. The authors propose that data centers be required to build their own power.	**High** – US electricity prices are rising for various reasons, data centers among them; highlights the need to have new energy uses pay their fair share of grid integration costs
What Are True AI Data Center Impacts?	**10/10/2025 (National):** A recent analysis by Harris Kupperman highlights the severe financial strain of AI data centers. Rapid technological change and the short lifespan of hardware (often only 3–10 years) means that the industry's capital expenditures highly outpace revenue. While previous estimates suggested $160 billion in 2025 revenue might break even, Kupperman now calculates $320–480 billion is needed just for 2025, and around $1 trillion over 2025–2026, making profitability highly unlikely. The rapid expansion of new centers could exacerbate the financial risk, potentially leading to a broader economic impact.	**High** – Data center revenue is not expected to exceed data center expenditures for upcoming years; various analyses now point out this investment/market risk
OH Data Center Tax Revenue	**10/6/2025 (OH):** A study by the Ohio Chamber of Commerce reports that data centers have generated $5.2 billion in tax revenue for the state since 2017, with total investments projected to reach $40 billion by 2030. The sector's rapid expansion is driving an expected 800% rise in energy demand and has sparked debate among lawmakers over tax incentives. Critics warn they could cost the state up to $1.6 billion in net lost revenue. Governor DeWine recently vetoed a measure that would have removed construction material tax exemptions for data centers. (Read the full report here).	**High** – OH's data center boom risks prioritizing econ growth over grid preparedness and fair taxation
AI Helps Medical Studies	**10/8/2025 (National):** Researchers at the University of Illinois Urbana-Champaign used the Pittsburgh Supercomputing Center's (PSC) Bridges-2 system to train AI models that identify missing steps in clinical trial reports. By leveraging powerful GPUs and natural language processing, the project created tools that assess compliance with established reporting standards (CONSORT and SPIRIT). The team aims to release an open-source version to help researchers and journals automatically detect reporting gaps, improving scientific accuracy and transparency.	**Medium** – AI supercomputing can enhance medical data integrity, research transparency, and provide societal benefit

Sustainability

Article/Link	Summary	Potential Impact
Data Center Enviro Impact Improve-ments	**10/2025 (National):** Schneider Electric released a report profiles 10 sustainability improvements to make at data centers to improve their environmental footprint. Strategies to reduce carbon footprint include having zero Scope 2 emissions (100% renewable energy), lowering the embodied carbon of IT equipment, using direct-to-chip cooling, and delaying equipment upgrades.	**High** – Large tech firm releases report outlining ways to reduce carbon footprint, energy use, and water use; wider thinking needed on community impacts
"Forever Chemicals" from AI Data Centers	**10/7/2025 (National):** As investment in AI data centers continues to rise, environmental and public health experts warn that these facilities may release PFAS, also known as "forever chemicals." PFAS are used in cooling systems and electronic coatings and can be easily released into surrounding ecosystems. PFAS are linked to serious health risks such as cancer and infertility, yet there is minimal testing or reporting on their use in data centers. Concerns intensified after the EPA announced it would speed through reviews of new chemicals used in data center projects, which advocates fear could weaken oversight and increase pollution risks for nearby communities.	**High** – PFAS contamination and environmental health risks resulting from data centers highlight conflict between tech expansion and public safety
PA's Climate Conflict with Data Centers	**10/15/2025 (PA):** Governor Josh Shapiro's plan to make Pennsylvania a national data center hub, highlighted by Amazon's $20 billion investment in new AI and cloud facilities, is clashing with the state's climate goals. While the initiative promises economic growth and technological leadership, its reliance on Pennsylvania's abundant natural gas raises concerns about undermining renewable energy progress and increasing carbon emissions.	**High** – PA's data center expansion risks increasing fossil fuel dependence, delaying the state's clean energy transition and environmental commitments
Data Center Impact on MN Waters	**10/7/2025 (MN):** Minnesota is facing growing tension between rapid data center development and the protection of its limited water resources. Several hyperscale data centers are planned and being constructed, often approved under nondisclosure agreements that limit public oversight. Environmental groups warn that the lack of transparent water use reporting and state-level governance could jeopardize household and agricultural water access. Residents are contesting a project that would nearly double the city of Farmington's daily water use. Experts argue for stronger regulation, public input, and clearer accountability in water permitting to prevent long-term harm.	**Medium** – Despite MN recent legislative efforts, community groups/NGOs think data center water usage is not disclosed or adequately addressed

Other Industry News

Article/Link	Summary	Potential Impact
PJM Cooperation With Electric Industry	**10/16/2025 (PJM Region):** Conflict between generators and distribution utilities in Pennsylvania and other PJM states over capacity shortages and higher wholesale prices could be counterproductive. Some distribution utilities want to build power generation and recover costs from customers. Generators point to market signals as evidence that the system is working. Both sectors must remain financially healthy and cooperate to ensure reliable, affordable electricity, rather than pursuing abrupt structural changes that could discourage investment.	**High** – Future cooperation and collaborative permitting/ policies can support grid reliability, affordability, and investment stability
National Security Data Center & Local Opposition	**10/8/2025 (MI):** The University of Michigan and Los Alamos National Laboratory plan to build a $1.25 billion data center in Ypsilanti Township, MI. The 300,000 sq ft facility would include a 20-acre substation and use 200,000 gallons of water daily and 100 MW of power. Stop The Data Center grassroots group raises concerns of high utility bills, water pollution, emissions, environmental justice, and the center's role in research. The township says that U-M has been deceptive about the project (Article Link). **10/15/2025 (MI):** Masked protesters recently opposed this data center by disrupting the homes of two Ypsilanti utility officials. Protesters left broken computer parts and signs. The officials were targeted somewhat mistakenly, as the Ypsilanti Community Utility Authority doesn't decide on the project. Authority rests with U-M's Board of Regents and state environmental regulators (Article Link).	**Medium** – Residents concerned that data center disproportionately affects low-income neighborhoods; Local authorities facing increased pressure to improve transparency, responsibilities, and address enviro/community concerns
WI CAFO Consolidates for Data Center	**10/7/2025 (WI):** Blue Star Dairy plans to consolidate operations and expand its herd from roughly 3,915 to 6,300 cows over the next five years. The farm projects at least 45 million gallons of liquid waste annually. The expansion coincides with plans for a nearby $3 billion QTS data center campus nearby, and residents of Arlington and Vienna, Wisconsin are heavily concerned with the environmental and social impact that these projects will create for their rural neighborhoods.	**Medium** – Competing interests and enviro impacts between data center and industrial farm operation; opportunity to coexist or will compete?
XDMoD Measures HPC Performance	**10/15/2025 (National):** XDMoD (XD Metrics on Demand), developed by the University at Buffalo, provides real-time insights into high-performance computing (HPC) resource use and efficiency. Since its 2009 launch, it has evolved from basic utilization tracking to include job-level performance data and advanced analytics. These metrics can help researchers and developers optimize workloads, improve system performance, and keep with infrastructure upgrades.	**Medium** – By improving visibility into HPC resource usage, XDMoD enhances data center efficiency and sustainability; requires R&D
Saline's AI Data Center Lawsuit	**10/13/2025 (MI):** Saline Township, MI, faced lawsuits from both Related Digital and local residents after attempting to block a 250 acre data center. The township secured concessions including limits on water usage and millions in local investments. Concern is growing over AI-driven electricity and water demands, noise, and pollution. Other municipalities (including St. Charles, MO, and Lordstown, OH) have set moratoriums or pushed back against proposals too.	**Low** – Municipal skepticism is rising, prompting moratoriums and stricter oversight. Cooperative engagement is necessary

THANK YOU

Let’s make bold changes together

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