DATA CENTERS

BI-WEEKLY UPDATE

November 19, 2025

FRESH COAST
Climate Solutions

Bold Solutions. Transformative Action.

EMERGING THEMES

Investments

An AI Bubble?

- More press on the potential AI bubble, due to its large scale, debt financing, heavy revenue dependence, few players, and circular investments
- Major companies (OpenAI, Anthropic) continue to announce major $Bs in data center expansions
- Data center developments framed as local economic revitalization (job creation, tech competitiveness, and manufacturing growth) alongside tensions over land and resource impacts
- Concerns over a related natural gas boom and bust cycle

Public–private partnerships

- Industry partnerships with utilities continue (DTE Energy in Michigan, Fluidstack and TeraWulf in Texas/New York)

Technology

Efficient infrastructure design

- Anthropic and OpenAI emphasize closed-loop water systems, LEED certification, and flexible load management to reduce energy needs
- On-site batteries and dedicated power gen continue to minimize grid strain
- Integration of renewables a continuing trend

Fuel switching potential

- TX builds DC with potential to lower emissions over time by starting on natural gas and switching to nuclear

Legislation & Market Development

Regulatory adaptation

- New rules/proposals (Michigan, PJM) attempt to mitigate grid and cost impacts, continue focus on econ growth, and continue to rely on fossil fuels
- Other states (IL, WI) pursue bills with more comprehensive requirements, including renewables, fair wages, and water/energy reporting
- Zoning disputes, settlements, and state-level tax credits show uneven governance responses to DC developments

Electricity pricing

- 6% rise in residential electricity cost (US EIA) intensifies concerns about DC impacts on energy costs

Enviro/Social/Economic Impacts

Balancing growth and sustainable technology

- Sustainable DC design, transparency, and state renewable power mandates can coexist with econ growth goals, rising total energy demand, AI demand; but net environmental and community impacts still need study

Community pushback

- Report compiles $64B in cancelled or delayed DC projects in US due to community pushback; a new form of NIMBYism
- Lighthouse Wisconsin data center a precedent for more Great Lakes water withdrawal?
- Few, if any, entities are reporting on profitability of DC investments and what fair share of benefits to state (tax revenue) and communities (tax revenue, local projects) could be

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 and stakeholders

Investments 1

Sustainability 4

Research & Technology 2

Other Industry News 5

Legislation 3

Investments

Article/Link	Summary	Potential Impact
Is AI Data Center Spending a Boom or Bubble?	**11/2/2025 (National):** Global investment in AI is driving a massive expansion of data centers, with spending expected to reach almost $3 trillion by 2028. Major projects are mostly backed by large tech companies, with a significant portion of the investment relying on private credit which raises concerns about financial risk. Analysts warn that many data centers may never be fully built or utilized. Many projects are betting on projected revenues that may not materialize (Article link). **11/2025:** KKR argues that the global buildout of data centers represents a lasting structural shift rather than a speculative bubble. With nearly $7 trillion in projected global investment by 2030, AI infrastructure is becoming the backbone of a new digital economy. Investment focused on access to power, land, and long-term contracts could avoid risks tied to inflated valuations (Article link).	**High** – Debate on whether the large scale, debt financed, and heavy revenue dependent DC boom poses economic risks, or whether it is just the beginning of a major industry movement
Data Center Debt Hotspots	**11/6/2025 (National):** The global AI data center expansion is increasingly being financed through complex and risky debt structures, creating concerns about a potential financial bubble. Borrowing by large tech firms focused on AI has reached $75 billion in September and October alone. Oracle's rising stock performance contrasts with rising credit risk indicators. Private credit and assets also play large roles, funding up to half of the $1.5 trillion expected buildout. While these financing mechanisms fuel rapid expansion, they also echo risky patterns seen before past financial crises.	**High** – Debt-fueled DC expansions heighten concerns of financial risk and a market bubble
OpenAI's Circular Deals	**10/31/2025 (National):** OpenAI's complex circular financial deals involve major tech companies and global investors exchanging large funds for computing power, stocks, and data center investments (often with money flowing back and forth between the same entities). This deal arrangement has enabled OpenAI to fund rapid infrastructure expansion but has also raised concerns about inflated valuations and potential systemic risks if the AI market slows. Despite high revenues, OpenAI currently operates at a loss, relying on speculation that AI breakthroughs will recover investments.	**High** – Intertwined deals accelerate growth but pose questions of industry financial risk and dependence on big tech companies
Burry Bets Against AI Stocks	**11/5/2025 (National):** Michael Burry disclosed a $1.1B short position against AI-focused stocks including Nvidia and Palantir. The Nasdaq lost 2% and Palantir dropped nearly 8%. This highlights risk in AI and tech, where only a few companies dominate the returns.	**Medium** – AI stocks can be speculative and consolidated to a few major tech companies
Anthropic's $50B National Investment	**11/12/2025 (NY, TX):** Anthropic announced plans to invest $50 billion in U.S. data centers, starting with Fluidstack sites in Texas and New York. About 800 permanent and 2,400 construction jobs are expected to be created. The facilities are expected to be online in 2026. (See also WSJ article on Anthropic vs. OpenAI profitability.)	**Medium** – Anthropic projects focus on economics; grid, enviro, other impacts need investigation
Deep Green's MI Expansion	**11/10/2025 (MI):** Deep Green (a data center developer known for reusing heat that's based in the United Kingdom) is expanding into the U.S. with a $120 million, 24MW data center in Lansing, Michigan. They've partnered with the Lansing Board of Water & Light to reuse waste heat from the data center for the city's hot water system. The project will support the city's decarbonization goals. Construction starts in 2026, with a 2027 launch planned.	**Medium** – Deep Green's model demonstrates how waste heat can be used for municipal heating

Research & Technology

Article/Link	Summary	Potential Impact
Potential Resolution to Rising Energy Prices	**11/4/2025 (National):** U.S. electricity prices have risen steeply due to rising natural gas costs, extreme weather, and growing demand from data centers and EVs. Much of the grid sits idle most of the time, but over-usage at times of peak demand drives costs up. The solution is for large users, like data centers, to reduce or shift energy usage during peak hours with batteries and/or on-site power generation. This can lower costs for both data center operators and residential grid users, avoid having to build new infrastructure, and help integrate new data centers to the grid faster.	**High** – Shifting DC power to non-peak times, integrating storage, and dedicating power generation could cut residential electricity bills and improve grid reliability
Residential Electricity Prices Up 6%	**10/27/2025 (National):** The U.S. Energy Information Administration reported that U.S. residential electricity prices rose about 6% in August 2025 to 17.62 cents/kWh, even as total generation and sales declined due to milder weather. Experts cite regional variations, rising natural gas prices (up 47%), and expanding energy demand from data centers, manufacturing, and electrification as key factors. Analysts warn that policy uncertainty and reduced federal renewable incentives may be increasing residential energy bills.	**High** – Fossil fuel dependence and stalled renewable growth drive higher household energy costs and emissions; highlights the need for stable, diversified, and cleaner energy infrastructure
$64B in DC Projects Blocked, Delayed in US	**11/14/2025 (National):** "$64 billion in U.S. data center projects have been blocked or delayed by a growing wave of local, bipartisan opposition. What was once quiet infrastructure is now a national flashpoint — and communities are pushing back." (See also The Hill article; "about 55 percent of Republicans and 45 percent of Democrats in districts with large data center projects have taken public positions against the developments, according to the study.")	**High** – Raised awareness and community concern of impacts from DCs has created a new "NIMBY flashpoint"
Cruso & Blue Energy's First Ever Gas-to-Nuclear Powered Data Center	**11/3/2025 (TX):** Crusoe and Blue Energy have partnered to build a 1.5 GW AI data center campus at the Port of Victoria in Texas. This project is the first of its kind to employ Gas-to-Nuclear power generation technology, initially utilizing natural gas power to get strated and then transitioning to modular nuclear generation by 2031. Blue Energy's prefabricated nuclear plants aim to cut construction time, costs, and supply chain challenges. The data center campus will be 1,600 acres, and the site was selected for its easy access to natural gas pipelines as well as existing transmission lines and fiber infrastructure.	**Medium** – Project shows promise of bridging use of natural gas to nuclear power, with potential to lower carbon footprint and scale to other sites

Legislation

Article/Link	Summary	Potential Impact
IL's Clean and Reliable Grid Affordability Act	**10/31/2025 (IL):** Illinois lawmakers passed the Clean and Reliable Grid Affordability Act (CRGA), which aims to expand 3 GW of battery energy storage by 2030, stabilize the grid, manage rising electricity demand from AI data centers, and mitigate future energy price spikes. Projects must be operational before incentives are granted (Article link). **11/4/2025 (IL):** This legislation creates virtual power plants and funds geothermal networks to improve energy efficiency and modernize transmission. The moratorium on large nuclear plants will be repealed. The law also arranges time-of-use pricing to optimize electricity consumption and balance costs (Article link).	**High** – CRGA advances IL's clean energy transition, enables large-scale battery storage and geothermal, stabilizes electricity costs, and minimizes the environmental footprint of energy generation; could serve as a model for other states
WI Proposes Data Center Water & Energy Transparency Bill	**11/6/2025 (WI):** Wisconsin lawmakers introduced the Data Center Accountability Bill to increase transparency and sustainability requirements for large data centers. The bill mandates public reporting on energy and water use, requires that facilities get at least 70% of their power from renewables, and enforces wage standards for construction workers. It also aims to prevent residential rate hikes by creating a new "very large customer" rate class and by collecting fees from data centers to fund renewable and low-income energy assistance programs. The legislation comes in response to growing public concern over the environmental and economic effects.	**High** – Wisconsin bill promotes sustainable energy investments, accountability, and fair labor while mitigating ratepayer burdens; could serve as a model for other states
Shapiro Joins PJM Governors Wanting Data Centers to Guarantee Own Power	**11/3/2025 (PA, PJM Region):** Governors from Pennsylvania, Maryland, New Jersey, and Virginia proposed a plan with the Data Center Coalition (DCC) to fast-track data center approvals if companies agree to generate and contribute their own power to the PJM grid. The initiative seeks to ease grid strain from rising AI-driven energy demand and improve reliability by pairing new data centers with dedicated generation sources. The proposal would also expand existing consumer price caps and speed up permitting with frameworks like Pennsylvania's "Lightning Plan." However, analysts warn that streamlining data center approvals could increase reliance on natural gas and disregard necessary environmental and community impact review processes.	**High** – PJM proposal focuses on reducing grid strain and fair costs but risks expanding fossil fuel use, raising concerns of environmental and community impacts
MI Regulations Move Upfront Costs to Data Centers	**11/6/2025 (MI):** Michigan regulators approved new rules requiring large data centers to sign long-term power contracts and cover all infrastructure costs before connecting to Consumers Energy's grid. The new standards aim to protect ratepayers from subsidizing energy intensive operations. Renewable energy usage will not be mandated. Local utilities are continuing major deal negotiation with hyperscale data centers with state tax incentives. Concerns persist about water use, land and community impacts, and the uncertainty of future energy demand.	**High** – Michigan utility commission rules shift new power gen costs to data centers but continue reliance on fossil fuels

Sustainability

Article/Link	Summary	Potential Impact
Energy and Water Conflicts in the Great Lakes	**11/6/2025 (Great Lakes Region):** A $15 billion data center campus called Lighthouse is planned near Port Washington, Wisconsin. Oracle, OpenAI, and developers emphasize the project's water-saving closed-loop cooling systems and partial reliance on clean energy. However, residents remain skeptical due to unclear details on energy sourcing, water limits, and broader environmental impacts. The project exemplifies the expansion of AI data centers in the Great Lakes Region, where industrial growth is facing state and community pressure to disclose freshwater resource use and other community impacts. (See map on next slide)	**High** – DC use of Lake Michigan water raises state and community concerns regarding transparency and ecological impacts; a precedent for more Great Lakes water withdrawal?
24GW of National Generation Capacity Added from Jan to Aug	**11/6/2025 (National):** An analysis of FERC infrastructure reports found that from January to August 2025, the U.S. added nearly 26 GW of new generating capacity, led by solar (19 GW) and wind projects. August alone brought 4 GW online of mostly solar power generation. FERC also recently reissued approval for the controversial Northeast Supply Enhancement gas pipeline from New Jersey to New York. Renewables continue to dominate new capacity additions despite federal emphasis on fossil fuels and nuclear.	**High** – Renewable energy growth is spurred partly by DCs and helps decarbonize DCs, but new gas infrastructure could exacerbate fossil fuel reliance
Stacking Sustainab-ility Innovations	**11/12/2025 (National):** America's rapid data center expansion must integrate sustainability and community benefits rather than just speed. Reusing waste heat for industrial uses, harvesting rainwater for cooling and irrigation, and turning carbon emissions into hydrogen fuel can mitigate negative environmental impacts of data center expansion. Pairing data centers with agriculture and carbon-capture systems could also create jobs and strengthen local economies. Policies that balance AI growth with responsible energy, water, and emissions management are key to sustainable growth.	**High** – Integrating energy recovery, water reuse, and carbon capture into data centers can drastically cut their environmental footprint while boosting community resilience and sustainability
Is 'Free' Renewable Energy Over?	**11/3/2025 (National):** Rising electricity demand, especially from data centers, could mean an end to the era of "free" excess renewable energy. High-efficiency long-duration energy storage (LDES) is essential to ensure grid reliability, decarbonization, and economic viability. Round-trip efficiency (RTE) is now a critical reliability factor, with 70% RTE emerging as the target for cost-effective grid-scale storage. These systems reduce wasted energy and reduce overbuilt infrastructure, decreasing long-term costs and environmental impact.	**Medium** – High-efficiency long-duration energy storage can meet electricity demand while minimizing wasted energy and reducing the environmental footprint of infrastructure.

Other Industry News

Article/Link	Summary	Potential Impact
Lessons from the Last Gas Boom & Bust	**11/4/2025 (National):** The U.S. is experiencing a rise in natural gas investment driven by the expansion of AI data centers, mirroring the gas boom of the early 2000s. Gas plant valuations have doubled since 2024 as companies race to meet expected power demand. Analysts warn that valuation forecasts may be overly optimistic, risking overbuilding similar to the last boom-and-bust cycle. Rising construction costs, supply chain constraints, and bottlenecks make new gas generation expensive and slow to deploy. Some utilities and regulators are introducing policies to shift new power gen costs to data centers to protect ratepayers. While gas will likely remain a key part of the grid due to coal plant retirements and growing energy needs, experts caution that investments must be made to avoid another costly overcapacity crisis.	**High** – Concerns over a new natural gas boom and potential bust cycle; potential overinvestment risks stranded assets and higher consumer costs; careful regulation needed to protect ratepayers and continue to spur renewable energy
Google's 15-year PPA with Total-Energies	**11/12/2025 (OH):** Google signed a 15-year Power Purchase Agreement (PPA) with TotalEnergies to receive 1.5 TWh of renewable power from the 49 MW Montpelier solar farm in Williams County, Ohio. The project is connected to the PJM grid and will help power Google's network of Ohio data centers. The deal strengthens TotalEnergies' U.S. renewable portfolio and advances Google's carbon-free energy strategy for digital infrastructure, supporting both companies clean energy goals.	**High** – Google purchases new solar to power DCs and lower its carbon footprint
Residential Backlash to DTE-Powered Data Center	**11/4/2025 (MI):** DTE Energy is seeking expedited approval for Stephen Ross, OpenAI, and Oracle's multi-gigawatt AI data center in Saline Township, Michigan, explicitly asking for no public comment. The 250-acre project would be fully powered by DTE. State officials in favor highlight technological competitiveness and economic benefits, while local community members and environmental advocates call for more transparency and consideration of potential impacts on farmland and increasing electricity costs due to the project's scale. (See also 10/30 MichiganAdvance article on scale of investment, and 11/12 ClickonDetroit article and 11/14 MLive article that continue to report on local reactions.)	**Medium** – DTE seeks expedited approval and no public comment on what Governor Whitmer touts as the largest investment project in Michigan
Political Backlash regarding elec costs	**11/12/2025 (National):** Rapid growth of AI-driven data centers—especially in states like Virginia and New Jersey—is significantly increasing electricity demand and infrastructure costs, which are being passed on to all ratepayers. At the same time, voter frustration over higher utility bills is becoming a political issue, reshaping campaigns and putting energy policy at the center of upcoming elections.	**Medium** – Rising electricity costs and relation to AI DCs are becoming an important issue in political campaigns

FRESH COAST
Climate Solutions

THANK YOU

Let's make bold changes together

Paul Gruber
pgruber@freshcoastclimate.com

Rachel Cushard
rcushard@freshcoastclimate.com