



August 2026 Integrated Infrastructure Board Briefing

August 2026 reinforced that integrated infrastructure companies are operating within an increasingly coupled electricity, energy, water, aerospace, and national-security system. Across **power demand and grid constraints**, NERC, FERC, the White House, EIA, IEA, and EEI all point to the same strategic reality: AI/data-center growth, computational-load reliability standards, bulk-power equipment security, ratepayer protection, inverter-based resource performance, grid modernization, and customer affordability are now central board issues. **Energy pricing and supply-chain pressures** remain equally consequential, as oil-market instability, incomplete Hormuz normalization, critical-minerals dependency, battery and industrial-feedstock initiatives, and foreign-produced grid-equipment risk exposed the fragility of both fuel security and capital-project execution. At the same time, **water and aerospace infrastructure issues** moved further into the enterprise-risk agenda: water-financing and workforce constraints, PFAS and water-reuse risks, data-center water use, FAA modernization, aviation communications incidents, aerospace supply-chain constraints, and space infrastructure all demonstrated that resilience now depends on the reliability, security, and interoperability of multiple critical systems.

Electricity – Nuclear, Bulk Power / Data Centers

1) NERC accelerated computational-load standards for data centers and other large loads

What happened: NERC moved its Large Loads Action Plan into a more formal standards phase in August. On August 18, NERC sent a letter to industry CEOs outlining near-term actions on computational loads and standards development, including a second round of comments on registry criteria and proposed standards. NERC also held an August 27 industry webinar on Project 2026-02, stating that the actions address core reliability needs for computational loads.ⁱ

Why it matters / impact: AI data centers and other large computational loads are becoming reliability-relevant grid actors. Their load behavior, ride-through characteristics, backup-power transitions, and simultaneous load drops can affect voltage stability, system restoration, reserve margins, and bulk-power-system planning.

Board director response: Require management to map all current and prospective computational-load customers, including load size, ramp profiles, backup generation, telemetry, curtailment rights, interconnection assumptions, and contractual obligations.

Monitor: NERC's computational-load standard comments due September 18, final registry criteria, FERC follow-up, data-center ride-through standards, and whether large-load customers become directly subject to NERC reliability obligations.

2) FERC's computational-load and large-load agenda remained central to grid governance

What happened: FERC's July 16 order directing NERC to develop reliability standards for computational-load integration remained a key August implementation issue. FERC also scheduled its annual Commissioner-led Reliability Technical Conference for October 21, 2026, specifically identifying unprecedented load growth, large computational loads, and inverter-based resources as major policy issues.ⁱⁱ

Why it matters / impact: FERC and NERC are moving from discussion to rulemaking and standards implementation. This affects customer onboarding, interconnection studies, RTO/ISO tariffs, transmission planning, cost allocation, and operational protocols.

Board director response: Ask management to provide a regulatory-readiness memo covering FERC/NERC computational-load standards, RTO/ISO tariff exposure, large-load interconnection policies, cost-causation frameworks, and customer communications.

Monitor: FERC technical-conference materials, RTO/ISO filings, PJM governance reforms, stakeholder comments, and how regulators balance speed-to-power with reliability and ratepayer protection.

3) The White House declared a national emergency to secure the U.S. bulk-power system

What happened: On August 26, the White House issued Executive Order 14420, declaring a national emergency to secure the U.S. bulk-power system from risks associated with foreign-produced electric equipment. The order stated that growth in advanced manufacturing, data centers, AI, and defense production has increased U.S. dependence on reliable electricity and magnified the consequences of successful cyberattack, supply disruption, or compromise of bulk-power-system equipment.ⁱⁱⁱ

Why it matters / impact: Bulk-power equipment security is now a national-security, cybersecurity, supply-chain, and procurement issue. This could affect transformers, inverters, control systems, relays, communications equipment, substation hardware, and software-enabled grid assets.

Board director response: Require a supply-chain security review of grid-critical equipment, including country-of-origin exposure, firmware/software risk, vendor access rights, remote maintenance, lifecycle patching, and replacement plans for restricted equipment.

Monitor: DOE implementation rules, prohibited-equipment lists, vendor certifications, replacement timelines, cost recovery, cybersecurity insurance implications, and potential retaliation or supply constraints. Reuters separately reported that the order bans certain foreign-produced bulk-power-system electric equipment from the U.S. grid. (

4) Data-center backlash intensified around electricity prices, water use, and local infrastructure burden

What happened: Public and political pushback against AI data centers accelerated in August, with concerns focused on power bills, water demand, land use, noise, and environmental impacts. The White House Ratepayer Protection Pledge states that large data-center operators—not ordinary ratepayers—should fund the electricity generation and infrastructure their projects require; EEI supported the pledge as consistent with “fair share” approaches for data centers, advanced manufacturing facilities, and other large loads.^{iv}

Why it matters / impact: Large-load growth is becoming a political-license issue, not just a load-forecast issue. Communities, regulators, and elected officials increasingly expect data centers to pay for grid upgrades, protect residential customers, disclose water use, and demonstrate local benefits.

Board director response: Adopt a board-approved large-load approval framework covering electricity cost allocation, water use, local tax contribution, job creation, infrastructure funding, environmental impact, and community engagement.

Monitor: State moratoria or restrictions, ratepayer-protection legislation, large-load tariffs, community litigation, water-use disclosure rules, and whether voluntary pledges become enforceable regulatory obligations.

5) NERC strengthened inverter-based resource ride-through requirements

What happened: On August 18, NERC’s Board adopted proposed Reliability Standard PRC-029-2, which enhances frequency and voltage ride-through requirements for inverter-based resources and addresses issues identified by FERC in Order No. 909.^v

Why it matters / impact: Solar, wind, storage, and other inverter-based resources are becoming a larger share of generation portfolios. Weak ride-through performance can turn grid disturbances into larger reliability events if resources trip offline during voltage or frequency excursions.

Board director response: Ask management to review inverter-based resource compliance, equipment settings, vendor obligations, testing protocols, event-reporting requirements, and exposure across owned and contracted renewable/storage assets.

Monitor: FERC action on PRC-029-2, compliance dates, interconnection requirements, inverter firmware/software updates, disturbance reports, and whether resource owners face retrofit costs.

Oil / Critical Minerals Supply

6) EIA’s August outlook showed energy markets still exposed to oil, gas, and power volatility

What happened: EIA's August 2026 Short-Term Energy Outlook was released on August 11. EIA's STEO data page identified August 11 as the release date and covered global oil markets, petroleum products, natural gas, electricity, coal, renewables, weather, and CO₂. EIA also reported that natural gas-fired electricity generation increased by 2% in the first half of 2026 and forecast additional natural gas generation growth in 2027 as gas prices remain relatively low, while coal generation continues to decline.^{vi}

Why it matters / impact: Infrastructure companies remain exposed to cross-commodity volatility. Electricity growth, gas-fired generation, oil-price shocks, diesel and jet-fuel costs, and coal-to-gas switching all affect operating costs, customer bills, project economics, and capital planning.

Board director response: Require management to maintain a fuel and power-market dashboard covering natural gas, coal, oil, diesel, gasoline, LNG, renewable generation, peak-load risk, and customer-bill impacts.

Monitor: Henry Hub prices, Brent/WTI spreads, LNG flows, diesel inventories, power-price volatility, coal retirements, renewable output, and whether lower gas prices accelerate gas-fired reliability investment.

7) IEA warned that oil supply risks remain elevated because Hormuz normalization remains incomplete

What happened: IEA's August Oil Market Report, published August 12, said an agreement enabling the reopening of Hormuz and unhindered transit through the Bab el-Mandeb Strait remained elusive. IEA lowered supply estimates and forecast global oil supply to fall by 4.3 million barrels per day in 2026 to 102 million barrels per day, with Americas growth only partly offsetting losses in the Middle East and Russia.^{vii}

Why it matters / impact: Energy-security risk remains a direct infrastructure risk. Oil-market disruption affects construction logistics, transportation, aviation fuel, backup generation, refinery margins, inflation, customer affordability, and macroeconomic demand.

Board director response: Review fuel-security plans for fleet operations, emergency generation, construction inputs, diesel procurement, aviation exposure, hedging, liquidity, and pass-through mechanisms.

Monitor: Strait of Hormuz and Bab el-Mandeb transit, war-risk insurance, refinery utilization, diesel and jet-fuel prices, LNG substitution, geopolitical escalation, and demand destruction in price-sensitive markets.

8) DOE expanded critical-minerals, battery, and industrial-feedstock initiatives

What happened: DOE announced \$162 million on August 19 for nine projects to recover critical minerals and valuable byproducts—including scandium, copper, antimony, and rare earth elements—from industrial feedstocks. On August 21, DOE announced \$500 million for seven selected projects to expand U.S. critical mineral and material processing, battery manufacturing, and recycling capacity.^{viii}

Why it matters / impact: Critical minerals remain a binding constraint across electricity, aerospace, water, energy, digital infrastructure, and defense supply chains. Rare earths, copper, nickel, lithium, graphite, antimony, gallium, and specialty materials are embedded in transformers, grid controls, batteries, motors, aircraft components, sensors, semiconductors, water-treatment technologies, and defense systems.

Board director response: Require a critical-materials exposure map by asset class and project, including grid equipment, batteries, inverters, aerospace components, controls, treatment systems, and digital infrastructure.

Monitor: DOE award implementation, domestic processing timelines, recycling capacity, China export controls, supplier-of-supplier mapping, offtake agreements, stockpiling options, and cost escalation in materials-intensive capital projects.

Water Infrastructure

9) Water infrastructure financing and workforce constraints remained urgent

What happened: EPA's WIFIA program page, updated in August, states that WIFIA provides supplemental, flexible, low-cost credit assistance to public and private borrowers for wastewater, drinking-water, and stormwater projects. EPA also announced \$10.8 million in grant funding on August 19 to support training for water-sector workers.^{ix}

Why it matters / impact: Water utilities face a dual constraint: large capital needs and workforce shortages. Financing helps address aging assets, PFAS, drought resilience, stormwater, wastewater, and lead-line replacement, but skilled operators and technicians are necessary to deliver projects and maintain compliance.

Board director response: Require management to align water capital plans with financing availability, workforce capacity, project readiness, procurement schedules, and rate-affordability strategy.

Monitor: WIFIA applications, SRF disbursement speed, water-operator recruitment, retirements, training grants, project delays, contractor capacity, and whether financing reduces rate shock.

10) PFAS and water-reuse risks became more visible internationally

What happened: In the U.K., The Guardian reported that pilot testing of Thames Water's proposed water-recycling scheme found PFOS levels up to 13 times the U.K. legal limit, complicating a project intended to combat drought and water shortages. EPA's drinking-water grants page also emphasizes funding for emerging contaminants in drinking water, including PFAS, and EPA's WIFIA project materials state that funded projects can help address PFAS and other emerging contaminants.^x

Why it matters / impact: Water reuse is becoming strategically important for drought resilience, but emerging contaminants can undermine public trust, permitting, environmental compliance, and project economics. PFAS risk spans drinking water, wastewater, biosolids, industrial discharges, and recycled-water strategies.

Board director response: Require a water-reuse and emerging-contaminants framework covering PFAS monitoring, treatment technology, residuals disposal, environmental permitting, customer communication, legal risk, and third-party validation.

Monitor: EPA PFAS guidance, U.K. Environment Agency reviews, state PFAS rules, recycled-water permitting, public acceptance, litigation, treatment performance, and whether reuse projects need redesign or added treatment steps.

11) Data-center water use became a board-level energy-water nexus issue

What happened: Reuters reported that Australia's NextDC disclosed rising water and energy use, with Water Usage Effectiveness increasing to 2.40 liters per kWh from 2.25 and Power Usage Effectiveness increasing to 1.49 from 1.44. This occurred amid broader global scrutiny of AI/data-center expansion and resource intensity.^{xi}

Why it matters / impact: Data centers stress both electricity and water systems. Power capacity, cooling technology, water withdrawals, wastewater, drought exposure, and community acceptance must be evaluated together, particularly where infrastructure companies provide both electricity and water services.

Board director response: Require joint electricity-water screening for large-load customers: peak MW, annual MWh, water withdrawals, cooling technology, wastewater capacity, drought contingency, ratepayer protections, and community benefits.

Monitor: Data-center water-use disclosure, dry-cooling adoption, municipal water-capacity limits, local moratoria, data-center-only utility structures, and public opposition to water-intensive projects.

Aerospace / Defense

12) FAA modernization advanced as aviation infrastructure and safety remained under scrutiny

What happened: FAA announced several August modernization actions. On August 18, USDOT said it would fund 238 grants totaling nearly \$615 million to modernize and reinforce airport infrastructure across 42 states and two territories. FAA also installed new surface-movement radar at Newark on August 11 and Reagan National on August 14 to improve runway tracking and prevent incursions. On August 25, FAA highlighted the opening of a key manufacturing plant supporting air-traffic-control modernization.^{xii}

Why it matters / impact: Aviation infrastructure is part of the broader integrated-infrastructure risk landscape. Air-traffic-control modernization, airport resilience, runway safety, radar, communications, and tower upgrades affect national mobility, supply chains, emergency response, aerospace demand, and public safety.

Board director response: If the company has aerospace or airport-adjacent exposure, require a review of aviation-infrastructure dependencies: airport modernization, airspace congestion, ATC technology, runway safety, construction risk, supply-chain resilience, and federal funding.

Monitor: FAA modernization milestones, airport grant deployment, runway-incursion metrics, radar installation progress, ATC staffing, permitting bottlenecks, and aviation-system resilience during extreme weather or cyber events.

13) The Marine One / Reagan National incident underscored aerospace-infrastructure and communications risk

What happened: FAA said it relocated an antenna and changed operational procedures after an August 4 close call involving Marine One and a passenger jet at Reagan Washington National Airport. AP reported that a preliminary NTSB report found White House construction contributed to radio-communication problems, and investigators identified issues with line-of-sight reception and backup communications.^{xiii}

Why it matters / impact: The incident highlights how physical construction, communications infrastructure, aviation operations, and safety protocols can interact in unexpected ways. For infrastructure boards, it is a reminder that “small” systems—antennas, backup communications, procedures, and coordination protocols—can create high-consequence risk.

Board director response: Ask management to identify single points of failure in communications, telemetry, dispatch, emergency operations, construction interfaces, and control-room redundancy across electricity, water, energy, and aerospace operations.

Monitor: NTSB findings, FAA corrective actions, ATC modernization funding, operational-procedure changes, communications redundancy, and lessons applicable to utility control rooms, emergency operations centers, and critical facilities.

14) Aerospace supply-chain constraints continued to affect production, aftermarket, and defense/space priorities

What happened: Reuters reported on August 5 that Honeywell Aerospace cut its 2026 sales-growth forecast due to supply-chain disruptions, prioritizing original-equipment deliveries to Boeing and Airbus over more profitable aftermarket work and emphasizing multi-sourcing and in-sourcing. Boeing’s Commercial Services Market Outlook separately identifies workforce and supply-chain constraints as key drivers in a 2026–2045 aviation services market it forecasts at \$4.9 trillion. Airbus’s 2026 global market materials continue to emphasize fleet renewal toward more fuel- and CO₂-efficient aircraft.^{xiv}

Why it matters / impact: Aerospace supply-chain fragility affects aircraft production, airline fleet planning, aftermarket availability, defense readiness, space systems, specialized materials, electronics, titanium, composites, engines, avionics, and logistics. For integrated infrastructure companies with aerospace exposure, this connects directly to critical minerals, energy costs, grid reliability, and advanced manufacturing capacity.

Board director response: Require aerospace-supply-chain stress testing across Tier 1/Tier 2 suppliers, critical components, workforce, quality systems, cyber risk, export controls, and defense-priority allocation.

Monitor: Boeing/Airbus delivery rates, engine and avionics bottlenecks, aftermarket availability, defense/space prioritization, supplier financial health, critical-material availability, and whether multi-sourcing reduces or merely shifts risk.

15) NASA's Roman Space Telescope launch reinforced the strategic importance of space infrastructure

What happened: NASA highlighted the launch of the Nancy Grace Roman Space Telescope aboard a SpaceX Falcon Heavy from Kennedy Space Center on August 30, 2026.^{xv}

Why it matters / impact: Space infrastructure increasingly supports weather forecasting, climate observation, communications, navigation, emergency response, grid operations, water monitoring, defense, and capital-market analytics. Launch cadence and space-system resilience matter for integrated infrastructure risk management.

Board director response: Ask management how satellite data, space-based communications, GPS timing, and Earth-observation tools support grid operations, water management, asset monitoring, disaster response, and cyber/physical resilience.

Monitor: Launch reliability, satellite supply chains, spectrum policy, GPS/timing resilience, space-weather risk, Earth-observation availability, and dependence on commercial launch providers.

Summary

For board directors, the August 2026 takeaway is clear: infrastructure resilience must be governed as an integrated enterprise system rather than as separate electricity, energy, water, aerospace, procurement, regulatory, cybersecurity, and customer-affordability workstreams. AI and data centers are reshaping electricity demand, grid reliability, cost allocation, and water use; energy markets remain vulnerable to oil, gas, and geopolitical shocks; critical minerals and foreign grid equipment are now national-security risks; water utilities face funding, workforce, PFAS, and reuse challenges; and aerospace infrastructure—from airports and ATC to supply chains and space systems—is increasingly part of the critical-infrastructure resilience agenda

For board directors, the practical CTAs are clear:

- Require an integrated electricity-energy-water-aerospace resilience dashboard;
- Approve a large-load and data-center governance framework
- Map critical equipment, foreign-supplier, and critical-minerals exposure;
- Strengthen fuel-security and commodity-risk monitoring;
- Validate water-financing, workforce, PFAS, and reuse strategies;
- Assess aerospace and aviation-infrastructure dependencies; and
- Ensure that growth is reliable, financeable, rate-recoverable, environmentally defensible, secure, and trusted by regulators, customers, investors, and communities.

The ultimate unified resilience dashboard will link AI/data-center load growth, computational-load standards, bulk-power equipment security, grid constraints, inverter-based resource reliability, ratepayer-protection frameworks, fuel-price volatility, critical-minerals exposure, domestic processing capacity, water-infrastructure financing, PFAS and reuse risk, data-center water demand, airport and air-traffic-control modernization, aerospace supply-chain fragility, and space-enabled operational dependencies.

Directors should press for scenario analyses that test simultaneous stress events: large-load growth, heatwave-driven demand, emergency curtailment, foreign-equipment restrictions, fuel-supply disruption, critical-component delays, PFAS compliance costs, water scarcity, aviation-system outages, aerospace production bottlenecks, and affordability impacts across customers and communities.

In the coming months, boards should monitor NERC and FERC computational-load actions, White House and DOE bulk-power-system implementation, EIA and IEA fuel-market signals, DOE critical-minerals funding, EEI fair-share frameworks, EPA water-financing and PFAS developments, data-center water-use disclosures, FAA modernization progress, aerospace supplier health, and space-infrastructure resilience. The governance priority is to ensure that growth is reliable, secure, executable, financeable, rate-recoverable, environmentally defensible, and trusted by regulators, customers, investors, and communities.

LinkedIn

August 2026 made one thing clear for infrastructure boards: AI-driven power demand, computational-load reliability risk, grid-equipment security, critical-minerals dependency, fuel-market volatility, PFAS and water-reuse risk, data-center water use, FAA modernization, aerospace supply-chain stress, and space infrastructure are no longer separate issues—they are one integrated resilience agenda. #BoardGovernance #Infrastructure #Energy #Electricity #Water #Aerospace #AI #DataCenters #GridReliability #CriticalMinerals #PFAS #EnergySecurity #Cybersecurity #RiskOversight #Resilience

ⁱ <https://www.nerc.com/newsroom/letter-to-ceos-outlines-near-term-actions-on-large-loads-and-standards-development-process> and <https://prod.nerc.com/>

ⁱⁱ <https://ferc.gov/news-events/news/summaries-july-2026-commission-meeting> and <https://www.ferc.gov/news-events/news/ferc-invites-public-comment-following-pjm-governance-and-stakeholder-reforms>

ⁱⁱⁱ <https://www.whitehouse.gov/presidential-actions/2026/08/declaring-a-national-emergency-to-secure-the-united-states-bulk-power-system/> and <https://www.reuters.com/legal/government/trump-signs-order-banning-some-foreign-equipment-us-energy-grid-2026-08-26/>

^{iv} <https://www.whitehouse.gov/releases/2026/07/president-trumps-ratepayer-protection-pledge-secures-american-ai-dominance-protects-consumers/> and <https://www.theguardian.com/environment/2026/aug/19/is-the-environmental-impact-of-datacentres-finally-cutting-through>

^v <https://www.nerc.com/newsroom/board-approves-ERO-Enterprise-2027-budgets-adopts-prc-029-enhancements>

^{vi} <https://www.eia.gov/outlooks/steo/data.php>

^{vii} <https://www.iea.org/reports/oil-market-report-august-2026>

^{viii} <https://www.energy.gov/cmei/articles/does-office-critical-minerals-and-energy-innovation-announces-162-million-accelerate>

^{ix} <https://www.epa.gov/wifia/about-wifia-program>

^x <https://www.theguardian.com/environment/2026/aug/27/forever-chemicals-london-thames-water>

^{xi} <https://www.reuters.com/business/energy/australia-data-centre-firm-nextdc-reports-rising-water-energy-use-with-profit-2026-08-28/>

^{xii} https://www.faa.gov/newsroom/press_releases

^{xiii} <https://www.reuters.com/world/us/us-faa-says-antenna-relocated-after-marine-one-safety-incident-2026-08-25/>

^{xiv} <https://www.reuters.com/business/aerospace-defense/newly-spun-off-honeywell-aerospace-cuts-2026-forecast-supply-chain-woes-2026-08-05/>

^{xv} <https://www.nasa.gov/>