



Infrastructure Update – Top News, February 2026

February 2026 saw a mixture of trade and regulatory shifts, recognition of the interaction between AI, energy and cybersecurity, and continued technology innovation.

TRADE & REGULATORY SHIFTS

1. Critical Minerals Export controls and Shortages impact Grid, Storage and OEM lead times

What happened: China imposed export controls affecting rare earth-related items to Japanese entities¹ and the U.S. proposed talks for a critical minerals trade bloc aimed at reducing dependence on China. There are also emerging rare earth shortages hitting aerospace and chips despite a prior trade truce—evidence that licensing/administrative frictions may be binding constraints.

Why it matters: Utilities feel this via: transformer and substation component supply chains, battery storage (materials + manufacturing) and grid-edge electronics and control systems (semiconductors).

Board questions / actions: i) Map “critical components” bill of materials and vendor tiers to single-country dependencies; and ii) require procurement to maintain an export-control/rare-earth licensing risk register.

2. Global Trade: U.S. Supreme Court Tariff Decision → Near-term Volatility for Input Costs

What happened: On Feb. 20, the U.S. Supreme Court struck down sweeping tariffs imposed under emergency authority, forcing a rapid policy shiftⁱⁱ.

Why it matters: Even when tariffs fall, re-pricing, supplier re-contracting, and retaliatory risk can whipsaw costs for: i) steel, copper, specialty alloys; ii) grid hardware and industrial equipment; and iii) treatment chemicals and pipes for water systems.

Board questions / actions: Require a tariff/tax/trade scenario deck tied to your capex plan, including bid validity windows and pass-through clauses.

3. State Regulatory Agenda hardens around load growth, transmission planning and “big load” oversight

What happened: Non-profit National Association of Regulatory Utility Commissioners, which represents state public service commissions regulating utilities, issued several documents in February. First, their materials emphasize load forecasting, data centers, transmission filings (FERC Order 1920), integrated planning, and resilience. Their Winter Summit agenda included site visits tied to data centers and substations, signaling hands-on regulator attention. And in February, NARUC adopted multiple resolutions including energy efficiency to curb bill increases and gas-related items, indicating near-term policy directionⁱⁱⁱ.

Why it matters: Expect **more formalized cost-allocation, tariff design, and reliability requirements** for large-load interconnections and for infrastructure upgrades that support them.

Board questions / actions: Ensure you have a regulator-ready narrative for who pays (data centers vs general rate base), and how you protect affordability.

INTERACTION AI – ENERGY – CYBERSECURITY - WATER

4. AI + data centers drive a step-change in load growth and resource adequacy risk

What happened: Multiple signals converged that AI/data centers are accelerating demand growth (utility earnings, national forecasts, and regulator focus). Reuters highlighted U.S. power demand records, and superior profits of certain utilities, driven by AI/crypto data centers^{iv}.

Why it matters: This is no longer just “forecast risk”—it changes **interconnection queues, capacity procurement, transmission buildout, and reliability margins**. NERC separately flagged intensifying resource adequacy risks as demand growth surges (notably tied to large-load additions)^v.

Board questions / actions:

- Require a **large-load intake governance** playbook (site screening, curtailment rights, behind-the-meter options, cost allocation).
- Stress-test **10–20% upside demand cases** and “cluster risk” (single corridor/substation saturation).

5. EIA February STEO: Demand broadens, Solar leads incremental supply & Gas price assumptions shift

What happened: EIA’s February 2026 Short-Term Energy Outlook explicitly notes data center growth (Texas + Mid-Atlantic) and that growth is becoming more geographically broad, while projecting demand met largely by increased solar generation and updating gas price/production assumptions^{vi}.

Why it matters: This affects: i) fuel procurement and hedging (gas price path + storage assumptions); ii)

dispatch stack economics (coal/gas/renewables interaction during peak/cold events); and iii) capex sequencing (transmission, grid-forming inverters, system strength, storage).

Board questions / actions: i) Align internal planning cases to STEO deltas (gas price + load growth) and show earnings/cashflow sensitivity; and ii) review “where load is showing up” vs your water system power/backup needs (treatment plants, pumping).

6. DOE “Genesis Mission”: AI explicitly positioned to accelerate grid planning, interconnection, operations, and security

What happened: DOE announced 26 Genesis Mission challenges, including “Scaling the Grid ... using AI to improve grid planning, interconnection, operations, and security,” plus “Discovering Quantum Algorithms with AI.”^{vii}

Why it matters: This is a policy/technology forcing function: utilities will be benchmarked against AI-enabled planning speed, queue processing, and cyber posture—while regulators ask why interconnection and system studies still take so long.

Board questions / actions: i) Demand an AI use-case portfolio for interconnection studies, outage prediction, cyber anomaly detection, and asset health; and ii) add governance: model risk management, auditability, and incident response for AI-enabled operations.

7. Water + Energy Security Converges: Infrastructure protection, AI and Cyber are a Shared Threat Surface

What happened: Sector discussions increasingly frame energy and water as a coupled resilience domain where AI and cyber shape both threats and defenses^{viii}.

Why it matters: Water utilities (treatment/distribution) are electricity-intensive and increasingly digitized; compromises in one domain propagate to the other (power loss → water service; water outage → cooling constraints for generation / data centers).

Board questions / actions: Require a cross-utility critical services map (electric ↔ water dependencies), minimum backup standards, and cyber segmentation requirements.

CONTINUED TECHNOLOGY INNOVATION

8. Battery Storage Deployment Scales Up

What happened: U.S. battery deployments scale up, increasing the role of storage in meeting peaks and supporting large-load growth^{ix}.

Why it matters: Storage is moving from “renewables add-on” to capacity/operational flexibility, especially where data centers cluster.

Board questions / actions: i) Confirm storage strategy across: utility-scale, substation-level and behind-the-meter partnerships with large loads; and ii) review market exposure: congestion, ancillary services, and curtailment economics.

9. Quantum “Harvest-now, Decrypt-later” Risk and PQC Migration Timelines for Grid

What happened: Sandia’s director emphasizes progress expectations for scalable quantum within a decade—keeping quantum risk on executive agendas^x. Meanwhile, practical work on post-quantum cryptography (PQC) for smart-grid contexts continues in the literature.

Why it matters: Even before large-scale quantum arrives, adversaries can exfiltrate encrypted traffic now and decrypt later—impacting: SCADA/OT communications, identity/cert infrastructure and vendor remote access.

Board questions / actions: Ask for a PQC readiness plan: crypto inventory, certificate lifecycle management, vendor requirements, and “hybrid” cryptography roadmap.

10. Computing Architectures: Neuromorphic/AI Advances Change the Energy Cost Curve

What happened: A DOE/Sandia-linked release highlights neuromorphic computing solving complex simulation equations with far lower energy than traditional supercomputer^{xi}s.

Why it matters: Two-sided risk/opportunity - defenders can run more real-time analytics (grid state estimation, anomaly detection) at lower energy cost, while attackers may also gain efficiency advantages (faster model-based intrusion tooling).

Board questions / actions: Include “compute innovation” in your cyber threat modeling and your grid-ops modernization roadmap.

ⁱ <https://www.reuters.com/world/asia-pacific/china-adds-20-japanese-entities-export-control-list-2026-02-24>,

<https://www.ft.com/content/afa45318-1c56-435a-a3c8-8b82a93714a0> (requires subscription),

<https://www.reuters.com/world/china/trump-reins-china-tech-curbs-beijings-export-controls-come-age-2026-02-26/> and

<https://www.reuters.com/world/china/us-hosts-countries-talks-weaken-chinas-grip-critical-minerals-2026-02-04>

ⁱⁱ <https://www.bakerinstitute.org/research/supreme-court-tariff-decision-what-comes-next-trade-markets-and-manufacturing>

ⁱⁱⁱ <https://pubs.naruc.org/pub/23673A32-DE14-57F4-2AF4-2FF6F43ADA8C>,

^{iv} <https://www.reuters.com/business/energy/us-power-use-beat-record-highs-2026-2027-eia-says-2026-02-10/> and

<https://www.reuters.com/business/energy/constellation-energy-beats-profit-estimates-strong-power-demand-2026-02-24/>

^v <https://www.nerc.com/newsroom/resource-adequacy-risks-intensify-across-north-america-as-demand-growth-surges>

^{vi} https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf

^{vii} <https://www.energy.gov/articles/energy-department-announces-26-genesis-mission-science-and-technology-challenges>

^{viii} <https://defensecommunities.org/2026/02/infrastructure-ai-cyber-the-new-energy-and-water-threats/>

^{ix} <https://www.wired.com/story/the-us-had-a-big-battery-boom-last-year/>

^x <https://www.abqjournal.com/business/quantum-will-be-scalable-to-real-problems-within-a-decade-says-sandia-director/2991005>

and <https://dl.acm.org/doi/10.1145/3733820.3764681>

^{xi} <https://www.sciencedaily.com/releases/2026/02/260213223923.htm>