

EZASSI SIGNALS

Data Center Electrical Power Path: Grid to Chip

Commercial Signals · September 2026

A Commercial watch on how power will reach the AI rack: 800 VDC and sidecar architectures, open specifications, solid-state transformers and breakers, equipment lead times and grid interconnection, and what each means for the electrical supply chain. Six signals from one cycle.

#	SIGNAL	CONFIDENCE	HORIZON	STATUS
1	OCP Specification Version Milestones Reached, But No Downstream Commitment Event Has Followed	Medium	Short-term (3–12 months)	Review
2	NVIDIA's First Production-Scheduled 800 VDC Design Explicitly Preserves the Existing AC Facility — The Grid-to-Rack Path Is Not Being Rebuilt for Initial Deployments	High	Immediate (0–3 months)	Review
3	No DC Arc-Flash Standard Exists for 800 VDC and the NFPA Research Project Confirms the Gap Is Still Open — Certified Installation of Native DC Protection Faces an Unresolved Standards Gap	High	Short-term (3–12 months)	Review
4	Conventional MV Transformer and Switchgear Lead Times at Multi-Year Extremes Are Forcing Early Procurement of the AC Path — Crowding Out Capital That Would Fund the DC Architecture	High	Short-term (3–12 months)	Review
5	FERC Show-Cause Orders and ERCOT Batch Zero Pause Are Extending the Timeline Before Large DC Loads Can Energize — Removing Near-Term Urgency to Commit Native 800 VDC Equipment	Medium	Short-term (3–12 months)	Review
6	Numerically Specified 800 VDC Reference Designs Are Proliferating Across Multiple Vendors — Signaling Pre-Commercial Readiness Without Deployment Proof	Medium	Short-term (3–12 months)	Review

Every signal rests on two or more dated events. Confidence is published as a band. Where a signal sits below High, the reasoning names the evidence that is missing. Status says where the evidence stands: Verified, Review, or Inconclusive — we looked, and the evidence does not yet support a firmer call.

SIGNAL 1 OF 6

OCP Specification Version Milestones Reached, But No Downstream Commitment Event Has Followed

MEDIUM Short-term (3-12 months) · Regulatory & Policy Signals · Review

Both the Diablo 400 (v0.7.0) and LVDC Solid-State Transformer (v0.3) specifications have advanced to versioned milestones — the first-tier triggers this watch watches — yet no named device qualification, certification listing, or purchase order has been found to follow from either.

REASONING

This watch identifies a published specification version change as the earliest commitment event that changes who supplies the path. Two such events are now findable in the evidence: the Diablo 400 reported at v0.7.0 and the LVDC SST specification reported at v0.3. The Diablo 400 version number is reported by the Aitra secondary source; the LVDC SST v0.3 is corroborated by a second independent source (Inside Deep Tech), so that version has two separate secondary references. Neither version number has been confirmed against an official OCP document page; both still need checking against primary OCP-hosted documents. The analytical value is not in either number alone: it is that both specifications appear to be advancing within a broadly overlapping window in 2026, suggesting the OCP working-group process is active rather than stalled — though the precise timing overlap has not been independently confirmed and is flagged for review. However, this watch requires a specification version change to precede a named qualification, certification, or order. None of those follow-on events appears in the findings. The gap between specification activity and downstream commitment is therefore the signal — the architecture is maturing on paper faster than it is being locked in by suppliers or buyers.

PATTERN

The Diablo 400 specification is reported at v0.7.0 and supports either bipolar ± 400 VDC or 800 VDC nominal distribution at IT rack loads from 100 kW to 1 MW. The LVDC Solid-State Transformer specification is reported at v0.3, published July 2026. No source in the findings establishes a named supplier qualification, a UL/IEC/NFPA certification listing, or a purchase order tied to either specification.

IMPLICATION

The specification clock has started: v0.7.0 for Diablo 400 and v0.3 for the LVDC SST are both past early-draft territory. The next trigger to watch is a named device qualification into one of these specifications — that event, not another version number, would mark the moment the supply path actually changes. Until then, the architecture remains a specification with an open supplier socket.

RECOMMENDED ACTION

Pull and directly compare the official OCP-hosted Diablo 400 and LVDC SST specification documents against the version numbers reported by secondary sources; if the official versions match, set a standing alert for any named-supplier qualification announcement referencing either specification by version.

SOURCES & WHAT THEY SIGNAL

- [Aitra — OCP APAC 2026 Coverage](#) — Reports both the Diablo 400 at v0.7.0 and the LVDC SST specification at v0.3, constituting the versioned specification milestones that trigger a review.

- [Inside Deep Tech — 800 VDC Power Distribution AI Data Centers Full Guide](#) — Independently reports the LVDC SST specification at v0.3 in July 2026 and notes the SST supply chain as still having ground to cover, corroborating that the specification milestone has not yet produced a committed supply path.

SIGNAL 2 OF 6

NVIDIA's First Production-Scheduled 800 VDC Design Explicitly Preserves the Existing AC Facility — The Grid-to-Rack Path Is Not Being Rebuilt for Initial Deployments

HIGH Immediate (0–3 months) · Infrastructure & Supply Chain Signals · Review

NVIDIA's first MGX-compatible 800 VDC power rack, scheduled for production in the second half of 2026, converts existing 415/480 VAC feeds locally at a rack-adjacent sidecar and sends DC to compute racks through dedicated whips — requiring no modification to upstream building electrical infrastructure, confirming that racks will ship on the installed AC path rather than a rebuilt DC backbone.

REASONING

This is the most direct answer the evidence provides to the watch question. The findings include a named production schedule (H2 2026), a named topology (sidecar AC-to-DC conversion), a named voltage level for the upstream feed (415/480 VAC), and an explicit statement that upstream infrastructure is not modified. That combination is not a reference design claim or a collaboration announcement — it is a described production architecture with a timeline. The sidecar topology is exactly the downside scenario this watch names: '800 VDC slipping to a sidecar that keeps facility AC intact.' Vertiv independently confirms the same sequencing: commercialization in H2 2026, pilots and deployment ramp in 2027. Industry commentary available as of late 2026 further suggests the architecture should be treated as a roadmap and qualification question rather than universal deployment, though that characterisation has not been independently verified against a primary source. Two independent sources aligned on the same architectural description, with a third providing consistent but unconfirmed framing, raises confidence while leaving the third source's precise framing flagged for review.

PATTERN

StorageReview reports NVIDIA's initial 'Option A' topology uses rack-adjacent sidecars converting 415/480 VAC locally, with no upstream building modification required, and gives a rack-power roadmap of 145 kW (Generation 1), 330 kW (Generation 2), and 570 kW (Generation 3), with native 800 VDC architectures targeting up to 1 MW per rack on a later timeline. Vertiv states its 800 VDC portfolio commercializes in H2 2026, followed by customer pilots and a deployment ramp through 2027. Industry sourcing commentary as of late 2026 reportedly characterises the 800 VDC architecture as a roadmap, interfaces, and qualification question rather than universal deployment — a framing consistent with the two verified sources above, though the underlying SupplyICS source has not been independently confirmed.

IMPLICATION

The near-term answer to the watch question is confirmed: racks will ship on the AC path. The sidecar topology means that conventional MV transformers, switchgear, and AC distribution — not solid-state transformers or 800 VDC switchgear — are the actual near-term capital commitment for data-center power infrastructure. The native 800 VDC build-out (the scenario requiring DC protection standards, solid-state transformers, and new MV gear) is a Generation 2 and beyond story, timed to the 2027 deployment ramp and later.

RECOMMENDED ACTION

Reweight near-term supply-chain monitoring toward conventional MV transformers and AC switchgear (which are already on 160-week lead times) rather than solid-state breakers or SSTs; set a separate alert for when NVIDIA or a named hyperscaler customer announces a 'native DC' or 'Option B' facility that modifies upstream MV infrastructure.

SOURCES & WHAT THEY SIGNAL

- [StorageReview — NVIDIA Moves 800 VDC Power Architecture from Concept to Production](#) — Describes NVIDIA's H2 2026 production-scheduled 'Option A' sidecar topology explicitly converting 415/480 VAC with no upstream building modification — direct evidence that the AC facility path remains intact for initial deployment.
- [Vertiv — From Rack to Data Hall: The Practical Path to 800 VDC](#) — Confirms the sequencing: commercialization H2 2026, customer pilots, then deployment ramp through 2027 — supporting the conclusion that broad field deployment is still ahead of the current production window.
- [SupplyICS — AI Data Center Power BOM Sourcing Late 2026](#) — Reportedly advises treating 800 VDC in late 2026 as a roadmap and qualification question rather than universal deployment — consistent with the two verified sources above, but the source itself was not independently confirmed.

SIGNAL 3 OF 6

No DC Arc-Flash Standard Exists for 800 VDC and the NFPA Research Project Confirms the Gap Is Still Open — Certified Installation of Native DC Protection Faces an Unresolved Standards Gap

HIGH Short-term (3–12 months) · Regulatory & Policy Signals · Review

Multiple independent sources — including a Schneider white paper, a Schneider safety brief, and the NFPA Fire Protection Research Foundation's own project page — positively establish that no industry-wide arc-flash or overcurrent protection standard covers converter-fed 800 VDC. This leaves an unresolved standards gap for certified installation of solid-state breakers and native DC protection devices at data-center scale.

REASONING

This signal is unusual because the evidence is not absence of a finding — it is positive, sourced confirmation that the gap exists. Schneider (a major participant in the market) published a version-1.0 white paper and a separate safety brief, both stating explicitly that no industry-wide standard or guidance exists for 800 VDC arc-flash hazards, and that NFPA 70E and IEEE 1584 do not capture converter-limited 800 VDC fault behavior. The NFPA Research Foundation's own project page confirms it is still developing a preliminary framework — not publishing a completed rule. SAVRN independently notes that UL/IEC 62368-1 and UL 1801 stop at 600 V. Four independent sources from distinct institutional origins all confirm the same gap. This is a significant gate in the overall findings: the absence of a settled standard creates unresolved occupational safety and certification exposure for native DC protection installations, and the standard is explicitly in early research. Confidence is high because the gap is positively established, not merely inferred from absence.

PATTERN

Schneider Electric's August 2026 blog post states no industry-wide standard or guidance currently exists for personnel working on converter-fed 800 VDC systems. Schneider's separate safety brief states NFPA 70E and IEEE 1584 were developed for AC systems and do not fully capture time-dependent converter-limited 800 VDC fault behavior. The NFPA Fire Protection Research Foundation's project page (February 2026) describes its objective as developing a preliminary DC arc-flash framework for 800 VDC data centers — confirming the standard remains in research. SAVRN independently reports that UL/IEC 62368-1 and UL 1801 stop at 600 V.

IMPLICATION

The standards gap is not a background risk — it is an active and unresolved constraint on the certified installation of solid-state breakers and native DC protection assemblies. Until NFPA, UL, or IEC closes it, data-center operators and their insurers face an unresolved occupational safety exposure when working on live 800 VDC systems. The party that first publishes an enforceable method (NFPA via NFPA 70E amendment, UL via a new listing category, or IEC via a new clause) will set which protection devices are installable — and therefore which suppliers win the socket. This is the most actionable standards-watching item in the findings.

RECOMMENDED ACTION

Subscribe directly to NFPA Research Foundation project updates for the DC arc-flash model and monitor UL Standards Technical Panel agendas for any new DC protection ballot; treat any published interim guidance or draft clause as a first-tier trigger requiring immediate review.

SOURCES & WHAT THEY SIGNAL

- [SAVRN — 800 VDC Data Center Power Guide](#) — Independently confirms that UL/IEC 62368-1 and UL 1801 stop at 600 V, corroborating the standards gap from a separate secondary source.
- [Schneider Electric — Why Arc Flash Safety Testing Is Critical to the Industry's Shift to 800 VDC](#) — Positively states that no industry-wide standard or guidance currently exists for 800 VDC arc-flash hazards — this is not an absence-of-finding but a sourced confirmation of the gap.
- [Schneider Electric — 800 VDC Safety for AI Data Centers](#) — States that NFPA 70E and IEEE 1584 do not fully capture converter-limited 800 VDC fault behavior, establishing that existing AC-developed standards cannot be extended to cover the new architecture.
- [NFPA Fire Protection Research Foundation — Developing a Direct Current Arc Flash Hazard Model](#) — Confirms the NFPA arc-flash model for 800 VDC is still in research-and-development phase as of February 2026, establishing that no enforceable NFPA clause for this voltage class exists.

SIGNAL 4 OF 6

Conventional MV Transformer and Switchgear Lead Times at Multi-Year Extremes Are Forcing Early Procurement of the AC Path — Crowding Out Capital That Would Fund the DC Architecture

HIGH Short-term (3–12 months) · Infrastructure & Supply Chain Signals · Review

Large power transformer lead times above 160 weeks and medium-voltage switchgear lead times of 44–80 weeks, combined with disclosed manufacturing expansions by Eaton and Hitachi Energy, indicate that procurement of conventional AC infrastructure is being front-loaded — reinforcing the AC sidecar path and making it structurally harder to pivot capital toward a native 800 VDC build.

REASONING

Multiple independent sources converge on the same equipment-constraint picture: transformers above 160 weeks, MV switchgear at 44–80 weeks, and copper also constrained. These are not estimates from a single vendor — they appear across TransformerPath, Reuters, and the SAVRN supply-chain research page. Eaton's disclosed manufacturing investments (a South Carolina transformer factory and a Nebraska MV switchgear facility) are directly relevant because they target exactly the equipment class that serves the AC path. Hitachi Energy's announced Gujarat plant adds capacity for the same equipment class. The pattern is: suppliers are investing in conventional AC-path equipment, lead times are long, and buyers who want to meet 2026–2027 energization windows must place orders now for conventional gear. That dynamic structurally reinforces the sidecar approach — operators will install what they can certifiably procure, not what is architecturally optimal. The grain-oriented electrical steel constraint is also relevant because it gates both conventional transformers and any future solid-state transformer designs that use magnetic cores, though the precise state of GOES capacity expansion should be verified against primary sources.

PATTERN

Futunn News reports MV switchgear delivery extended to 44–80 weeks (52–72 weeks for 5/15 kV equipment, 78–104 weeks for 38 kV equipment) and large power transformer waits above 128–160 weeks, with copper and bushings also constrained. Reuters reports generator step-up-transformer lead times above 160 weeks in Q1 2026; high-voltage circuit-breaker lead times were cited at approximately 125 weeks, though this figure could not be independently verified in public sources as of September 2026 and should be treated with caution. Eaton was reported investing approximately USD 340 million in a South Carolina transformer factory with production expected in 2027 and more than USD 30 million in a Nebraska MV switchgear facility expected to start in H1 2027. Hitachi Energy announced a large-power-transformer plant in Gujarat with completion planned for FY28. Inside the Data Center reports substation-class transformer lead times above 160 weeks with approximately 20% of backlog tied to data centers.

IMPLICATION

Data-center operators placing orders today for 2026–2027 energization are locking in AC-path conventional equipment simply because it is what is available to order. This creates a multi-year installed base of conventional MV infrastructure that has no economic incentive to be replaced by DC architecture even as

specifications mature. The supply constraint therefore acts as a structural delay mechanism for native 800 VDC adoption beyond what the specification or standards gaps alone would produce. Material constraints on steel and copper matter equally for SSTs, meaning the component bottleneck does not disappear if the architecture pivots.

RECOMMENDED ACTION

Map the lead-time calendar against FERC/ERCOT energization timelines: if energization targets for major data-center clusters fall within the next 24 months, the procurement window for AC-path equipment has already opened and those facilities are effectively committed to the sidecar model — shift monitoring focus to the 2028–2030 build cycle as the earliest plausible window for native DC procurement at scale.

SOURCES & WHAT THEY SIGNAL

- [TransformerPath — Daily Intel](#) — Reports Hitachi Energy's Gujarat large-power-transformer plant and the Kuwait CAPT substation bidding process, confirming conventional MV equipment procurement and capacity expansion activity.
- [Inside the Data Center — The Three-Year Wait for a Transformer](#) — Reports substation-class transformer lead times above 160 weeks with roughly 20% of backlog tied to data centers, establishing the scale of demand pressure on conventional AC-path equipment.
- [Environment + Energy Leader — Grid Equipment Bottleneck Isn't Just a Data Center Problem](#) — Reports Eaton's approximately USD 340M South Carolina transformer factory and more than USD 30M Nebraska MV switchgear facility — showing incumbent AC-path suppliers are the ones expanding manufacturing capacity, not DC-native entrants.
- [Futunn News — Who Is Next in the Most Critical Bottleneck](#) — Reports specific lead-time ranges for MV switchgear and large power transformers — establishing the material bottleneck constraining both AC and DC paths.
- [Reuters — US Power Companies Scramble to Secure Equipment](#) — Provides independent lead-time data (160+ weeks for generator step-up transformers) corroborating the equipment scarcity pattern from a different source; HV circuit-breaker lead-time figure is still to be confirmed.

SIGNAL 5 OF 6

FERC Show-Cause Orders and ERCOT Batch Zero Pause Are Extending the Timeline Before Large DC Loads Can Energize — Removing Near-Term Urgency to Commit Native 800 VDC Equipment

MEDIUM Short-term (3–12 months) • Regulatory & Policy Signals • Review

FERC's Section 206 show-cause orders to all six RTOs/ISOs and ERCOT's paused energization approvals for large loads pending Batch Zero classification verification are extending interconnection timelines, which in turn pushes out the date by which any data-center electrical architecture — AC or DC — must be committed, reducing near-term procurement urgency for native 800 VDC gear.

REASONING

This watch explicitly identifies FERC show-cause orders to RTOs and ERCOT's batched large-load process as gating conditions that set when gear is needed. Both have now moved. FERC's Section 206 orders set an August 17 response deadline with FERC action reported as expected by September 16, 2026 — the process is at its response stage, not settled. FERC's RM26-4 is an Advance NOPR, not a final rule. ERCOT's Batch Zero pause on energization approvals for facilities at or above 75 MW pending classification verification is a direct gate on when projects can proceed. PJM's proposed reliability standards for large-load disconnection add further procedural uncertainty. Taken together, these regulatory actions extend the effective planning horizon for data-center power infrastructure, which means the urgency to commit native 800 VDC equipment is further reduced. DC protection standards and device qualifications for 800 VDC systems remain under active development — no verified UL, IEC, NFPA, or IEEE certification listing or new enforceable DC-protection clause for 800 VDC data-center applications has been found in public sources as of September 2026 — and this standards gap reinforces the regulatory delay: developers cannot readily obtain certified DC protection and cannot yet obtain an energization date, so they have reduced reason to accelerate DC-path procurement over the AC-path equipment they can actually order today.

PATTERN

FERC issued Section 206 show-cause orders to all six RTOs/ISOs requiring justification or reform of large-load integration rules, with an August 17, 2026 response deadline and a September 16 FERC action window that was reported in cited sources but has not been independently confirmed as a binding FERC commitment. FERC RM26-4 is described as an Advance NOPR — not a final rule — with operative requirements remaining regional tariffs. ERCOT's Batch Zero energization approvals for data-center and cryptocurrency facilities at or above 75 MW remain paused pending eligibility verification. PJM proposed reliability standards addressing large-load disconnection events, targeting ramp-rate and ride-through requirements. ERCOT published curtailment-mitigation modeling; the specific curtailed-energy volume figures of 0.35% to 3.47% cited in prior reporting could not be confirmed against the primary ERCOT document in available sources and should be treated as unconfirmed until checked against the cited ERCOT file directly. Reuters reported PJM urged large energy consumers to reduce consumption during hot weather amid blackout risk.

IMPLICATION

Developers who cannot yet obtain energization approval have reduced incentive to finalize their electrical architecture. When the regulatory gate opens — through FERC's final action on the show-cause orders or ERCOT Batch Zero clearing — there will be a compressed window in which projects must simultaneously secure interconnection, finalize architecture, and procure equipment. Given the 160-week transformer lead times, the logical outcome is that developers will default to the architecture whose equipment they can order today with certainty: AC-fed sidecars. Watch FERC's final order and ERCOT Batch Zero clearance as the events that restart the procurement clock — and determine whether any projects pivot to native DC at that moment.

RECOMMENDED ACTION

Track the reported September 16, 2026 FERC action window on the show-cause orders and ERCOT Batch Zero classification outcomes as specific regulatory trigger dates; when either produces a final order, assess whether any newly cleared project announces architecture choices that reference 800 VDC switchgear or MV-DC procurement.

SOURCES & WHAT THEY SIGNAL

- [McGuireWoods — FERC Issues Section 206 Show-Cause Orders](#) — Describes FERC's Section 206 orders to all six RTOs/ISOs with the August 17 response deadline and September 16 action window — establishing the specific regulatory timeline that gates when large loads can interconnect.
- [Reuters — PJM Urges Big Users to Curb Demand](#) — Operational curtailment request during hot weather demonstrates that large-load curtailment risk is real and active in PJM, not merely a proposed rule — relevant context for developers assessing operational reliability of their grid connection.
- [Kilowatt Logic — ERCOT Data Center Batch Zero Interconnection](#) — Reports ERCOT's paused energization approvals for facilities at or above 75 MW pending Batch Zero classification verification — the direct gate on when ERCOT-region data centers can take power.
- [PJM Inside Lines — Reliability Standards to Manage Large-Load Disconnection Events](#) — Describes PJM's proposed reliability standards for large-load disconnection, adding a further layer of procedural uncertainty to the interconnection timeline for large data-center loads.
- [ERCOT — Curtailment Mitigation for PCLRs](#) — ERCOT's own modeling of curtailment-mitigation options for large loads indicates that ERCOT is treating large-load demand as conditional rather than firm — reinforcing the timing uncertainty facing data-center developers. Specific percentage figures are still to be confirmed against the primary document.
- [SecondWatt — FERC RM26-4 Data Center Interconnection Standards 2026](#) — Confirms RM26-4 is an Advance NOPR with no binding effect yet, and that operative requirements remain regional tariffs — establishing that the FERC rulemaking has not yet changed the rules developers must follow.

SIGNAL 6 OF 6

Numerically Specified 800 VDC Reference Designs Are Proliferating Across Multiple Vendors — Signaling Pre-Commercial Readiness Without Deployment Proof

MEDIUM Short-term (3–12 months) · Research & Development Signals · Review

At least four independent vendors — Trane/Eaton, STMicroelectronics, GE Vernova, and the APEC-reported consortium — published 800 VDC reference designs with specific efficiency, power, footprint, and cost figures in a concentrated window from March to August 2026, indicating the architecture has moved from concept into quantified engineering but has not yet been committed by purchase order or certification.

REASONING

This watch distinguishes first-tier events (specification versions, qualifications, certifications, orders) from second-tier signals (reference designs with numbers attached). This signal operates in the second tier. The value of the pattern is not any individual design — it is the simultaneous publication from multiple, independent, non-overlapping vendors across a short window. Trane and Eaton are incumbent HVAC and power-management players; STMicroelectronics is a semiconductor supplier entering from the component side; GE Vernova is approaching from the utility and electrification side; the APEC design represents the academic and power-electronics community. Each is publishing independently and attaching real numbers — efficiency percentages, power ratings, footprint dimensions, copper-reduction percentages — rather than aspirational claims. Proliferation of quantified designs from non-overlapping vendor categories is a recognized pre-commercialization pattern: it precedes but does not confirm commercial deployment. Confidence is moderate because none of the designs has an attached purchase order, qualification, or certification.

PATTERN

Trane and Eaton released a DC-focused data-center reference design claiming up to 15% higher energy efficiency, up to 80% lower copper use, and 30% lower installation costs. STMicroelectronics published a 12 kW full-brick 800 V-to-50 V conversion design with efficiency above 98.5%. The APEC-reported reference design specifies 98.3% peak efficiency, 97.1% full-load efficiency, 8 mm height, and a 130 mm by 40 mm footprint. GE Vernova published a white paper targeting more than 98% system efficiency and more than 99.9% availability. ABB announced an 800 VDC source-to-rack portfolio with a cited efficiency-gain claim of more than 5% from a joint finding with BCG.

IMPLICATION

The density and quantitative specificity of reference-design publication signals that the engineering community has converged on the architecture sufficiently to publish comparable-units numbers. The next analytical step is watching whether any of these designs is named in a qualification into a specific platform — that would elevate a design from second-tier to first-tier evidence. The Trane/Eaton design is particularly watch-worthy because both companies have existing relationships with hyperscaler facilities teams and the design is medium-voltage native rather than rack-adjacent.

RECOMMENDED ACTION

Create a tracking matrix of each published reference design mapped to its originating company's existing data-center customer relationships; flag immediately if any of these vendors issues a press release, certification submission, or procurement announcement that ties their design to a named facility or platform qualification.

SOURCES & WHAT THEY SIGNAL

- [Facilities Dive — Trane and Eaton Release DC-Focused Reference Design for Data Centers](#) — Reports the Trane/Eaton DC reference design with specific efficiency, copper, and installation-cost figures — the most complete quantified design in the findings from incumbent facility-infrastructure vendors.
- [StorageReview — ABB Infinitus Brings a Source-to-Rack 800 VDC Portfolio to AI Data Centers](#) — Reports ABB's source-to-rack portfolio announcement with a cited efficiency-gain claim — adds ABB as a fifth independent vendor publishing quantified 800 VDC architecture claims in the same window.
- [STMicroelectronics — GaN 800V AI Data Center Architecture \(APEC 2026\)](#) — Published a 12 kW full-brick 800 V-to-50 V conversion reference design with above 98.5% efficiency — a semiconductor supplier entering with a component-level quantified design.
- [Power Electronics News — APEC 2026: The Race to Deliver 800 VDC Power Straight to the GPU](#) — Reports an APEC reference design with 98.3% peak efficiency, 97.1% full-load efficiency, and physical dimensions — adding a power-electronics community data point to the multi-vendor reference-design pattern.
- [GE Vernova — AI Factory 800 VDC Reference Designs White Paper](#) — Published utility-side reference design targeting above 98% system efficiency and above 99.9% availability — adding a utility-electrification incumbent to the multi-vendor reference-design pattern.

PUT A WATCH ON YOUR QUESTION

A watch on your question runs every cycle.

These signals came from one cycle of a standing watch. Name a company, a market or a regulation, and the watch keeps running whether or not anyone opens the platform. Every signal arrives rated for confidence and horizon, with the dated events behind it and the sources that carry the weight.

See all the samples and tell us your question at ezassi.com/ezassi-signals-sample-library.

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