

EZASSI SIGNALS

Data Center Hardware Manufacturing Capacity and Trade Rules

Commercial Signals · September 2026

A Commercial watch on which data center hardware capacity is actually being built, and which trade rules and lead times decide where that work sits. Seven signals from one cycle.

#	SIGNAL	CONFIDENCE	HORIZON	STATUS
1	Electrical equipment lead times remain at crisis levels and are trending worse, not better — validating that announced US capacity is chasing real scarcity	High	Immediate (0–3 months)	Review
2	Three US data-center hardware capacity additions have moved past pure investment claims into named buildings or stated openings — but none has completed the full verification chain of permit, equipment order, and production start	Medium	Short-term (3–12 months)	Review
3	Section 232 is migrating toward data-center power and cooling inputs through a proposed August 2026 derivative expansion and a known 2027 tariff-rate step-up — creating a compounding landed-cost risk for imported cable, heat-exchanger parts, and electrical equipment	Medium	Short-term (3–12 months)	Verified
4	The CDU vendor field is crowding rapidly across power tiers from 300 kW to 2.5 MW, with HVAC and electronics incumbents entering or expanding on a compressed timeline — raising the downside risk for capacity built to current architectural specifications	Medium	Short-term (3–12 months)	Review
5	Southeast Asia is consolidating as an active data-center hardware manufacturing base, with a reported Vertiv opening in Johor and a RM190 million switchgear order placing that geography ahead of announced-but-unbuilt alternatives	Medium	Short-term (3–12 months)	Verified
6	US machine-tool orders in July 2026 were up 55% year-over-year, reported by American Machinist — a strong forward signal that fabrication-capacity investment is accelerating and is likely to add press-brake, laser-cutting, and metalworking capacity within 6 to 18 months	Medium	Short-term (3–12 months)	Review
7	FEOC and material-assistance restrictions under 45X, 45Y, and 48E are now in active implementation with no product-specific safe-harbor tables yet published — creating a compliance gap that redirects sourcing decisions toward non-prohibited-entity supply chains without clear guidance on which data-center hardware qualifies	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 7

Electrical equipment lead times remain at crisis levels and are trending worse, not better — validating that announced US capacity is chasing real scarcity

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

Multiple independent sources indicate that LV switchgear, MV switchgear, transformers, CDUs, and heat exchangers all carry lead times well beyond normal production cycles, with several categories reported as worsening during the monitoring window, and suppliers reported to be repricing year-old orders at significant premiums to hold delivery slots.

REASONING

This signal rests on several methodologically independent sources: a published lead-time monitor updated September 2026, a separate lead-time index updated August 2026, and Reuters reporting from July and August 2026. The figures are specific and directional. The Open Factory monitor reports LV switchgear lead times at an elevated level as of September 2026 and indicates worsening rather than improvement relative to prior periods, though the precise week figure could not be independently confirmed from the retrieved context and should be treated as approximate. Vawn's index, as reported in available sources, shows MV switchgear trending upward and LV switchgear at an extended level. Reuters independently reports generator step-up transformer lead times exceeding 160 weeks in Q1 2026, and high-voltage circuit-breaker lead times at 125 weeks in H2 2025 versus 77 weeks in 2023. Reuters is also reported to have documented suppliers returning to customers with year-old purchase orders and imposing significant price increases to maintain delivery schedules — a market behavior consistent with severe allocation pressure, not loosening supply; this specific claim awaits independent confirmation. SAVRN adds CDU lead times in the range of 6 to 10 months for 1 to 3 MW CDU orders. No source in the findings shows lead times shortening. The combined picture is that scarcity is real, broad across product categories, and in several categories worsening during the monitoring window.

PATTERN

Open Factory Lead-Time Monitor (September 2026) reports LV switchgear lead times at an elevated level and indicates the level is higher than prior periods, though the specific week figure was not independently confirmed in retrieved sources and should be verified. Vawn's index (updated August 13, 2026) is reported to show MV switchgear trending upward, LV switchgear at an extended level, busway at approximately 27 weeks stable, and power/substation transformers at 160-plus weeks trending upward; these figures could not be independently confirmed from the retrieved context. Reuters (July 9, 2026) reports generator step-up transformer lead times exceeded 160 weeks in Q1 2026, and HV circuit-breaker lead times reached 125 weeks in H2 2025 versus 77 weeks in 2023. Reuters (August 19, 2026) is reported to have documented suppliers returning to customers with year-old purchase orders and imposing price increases to maintain delivery schedules; the specific 20% figure and this sourcing could not be confirmed from retrieved context. SAVRN (as of July 2026, published August 18) reports CDU lead times of 6 to 10 months for 1 to 3 MW CDU orders. BuilderMUSE (updated September 22, 2026) estimates 40 to 60 week switchgear lead times and

warns that switchgear not already ordered for Q1-permitted projects could arrive in Q3–Q4 2027 at the earliest.

IMPLICATION

Lead times have not peaked and are not converging back to normal. Any supplier or customer that has not already placed orders for switchgear, MV gear, CDUs, and heat-exchanger components is facing 2027 or later delivery windows. Reported repricing of existing orders signals that even booked positions may not be fully secure. For a supplier adding capacity now, the scarcity environment is genuine and unlikely to resolve before 2028 — but any lead-time shortening when it eventually arrives will be the earliest warning that the window for premium-price, fast-delivery positioning is closing.

RECOMMENDED ACTION

Establish a monthly lead-time tracking cell using Open Factory, Vawn, and at least one distributor backlog disclosure as standing inputs; set a four-week directional move in any major category as an automatic escalation trigger, because the first sustained shortening will be the leading indicator of capacity oversupply.

SOURCES & WHAT THEY SIGNAL

- [BuilderMUSE — Data Center Permits 2026 \(updated September 22, 2026\)](#) — Estimates 40 to 60 week switchgear lead times and warns that switchgear not already ordered for Q1-permitted projects could arrive in Q3–Q4 2027, framing the demand pipeline against current lead times.
- [SAVRN — The Data Center Supply Chain Crisis 2024–2026 \(August 18, 2026\)](#) — Reports CDU lead times of 6 to 10 months for 1 to 3 MW CDU orders, extending scarcity evidence to the liquid-cooling product category.
- [Open Factory — Lead-Time Monitor \(September 2026\)](#) — Reports LV switchgear lead times at an elevated level versus prior periods, plus extended unfilled orders relative to shipments for NAICS 3353 in July 2026; specific week figure requires independent verification.
- [Vawn — Electrical Equipment Lead Time Index \(August 2026\)](#) — Reported to provide a multi-category snapshot showing MV switchgear trending upward, LV switchgear at an extended level, transformers at 160-plus weeks trending upward, and busway at approximately 27 weeks stable; figures could not be independently confirmed from retrieved context and are still to be confirmed.
- [Reuters — U.S. power companies scramble to secure equipment \(July 9, 2026\)](#) — Independently documents transformer lead times exceeding 160 weeks in Q1 2026 and HV circuit-breaker lead times at 125 weeks in H2 2025, confirming the trend across grid-connected equipment categories.
- [Reuters — The unexpected winners of America's data-center boom \(August 19, 2026\)](#) — Reported to document suppliers returning to customers with year-old purchase orders and imposing price increases to maintain delivery schedules, evidencing allocation pressure inside the existing order book; the specific percentage figure and this sourcing are still to be confirmed.

SIGNAL 2 OF 7

Three US data-center hardware capacity additions have moved past pure investment claims into named buildings or stated openings — but none has completed the full verification chain of permit, equipment order, and production start

MEDIUM Short-term (3–12 months) • Infrastructure & Supply Chain Signals • [Review](#)

AMET, Crusoe, and Siemens each represent a different stage of execution evidence — building footprint cited, opening reported, and product line named respectively — placing them ahead of investment-only announcements but short of fully verified plant operations.

REASONING

This watch explicitly ranks capacity evidence in order: site bought or leased, building permit or state incentive filing, capital equipment ordered, hiring posted or WARN notice, and stated production start. None of the three announcements clears the full chain, but each has moved at least one step beyond a pure investment number and a region. AMET names a 500,000-square-foot building with a defined initial footprint of 40,000 square feet and a stated 100,000-square-foot expansion reservation — that is building-scale specificity even without a permit or equipment order on record. Crusoe's reported Tulsa opening states a date (September 14, 2026) and 400,000 square feet, which is more specific than a site-selection announcement, though the source is industry media rather than a permit or government filing. Siemens announced a US data-center manufacturing investment in the Carolinas that names busway as the primary product-line expansion, which is more informative than a regional dollar figure alone; however, the investment figure and announcement date are still to be confirmed against the primary source before being stated as fact. Together they form a pattern: real US manufacturing commitment in electrical and data-center infrastructure, but still dependent on secondary verification. Confidence is held at Medium because no permit, equipment order, hiring record, or production-start date has been confirmed in the findings for any of the three.

PATTERN

AMET (September 4, 2026) states its initial footprint occupies 40,000 square feet within a 500,000-square-foot facility, with 100,000 square feet reserved for future expansion. Crusoe (reported September 14, 2026) reportedly opened its second manufacturing facility in Tulsa, Oklahoma, adding 400,000 square feet for production of electrical equipment used in AI infrastructure. Siemens (September 22, 2026) announced a US data-center manufacturing investment in the Carolinas that will significantly increase busway production capacity and add fabrication capabilities; the specific investment figure should be confirmed directly against the primary Siemens source.

IMPLICATION

Three capacity additions in the same six-week window, all in US electrical and data-center infrastructure, is not coincidence — it reflects suppliers responding to the documented scarcity in switchgear, busway, and electrical equipment. The gap between announcement and verified execution (no permits or equipment orders confirmed) is the current risk: plants announced during a shortage do not always start production

before the shortage eases. Priority action is to verify these three against local permit records and state incentive filings before treating them as committed supply.

RECOMMENDED ACTION

Pull the building permit record and state incentive filing for each of the three sites — AMET's 500,000-square-foot building, Crusoe's second Tulsa address, and the Siemens Carolina location — using local municipality permit databases; a permit filing elevates the confidence in these as committed capacity and changes the sourcing and competitive calculus materially. Also confirm the Siemens investment figure directly from the primary source, as this could not be verified from the retrieved evidence.

SOURCES & WHAT THEY SIGNAL

- [AMET — Our New Data Center Manufacturing Facility Will Improve Speed to Market \(September 4, 2026\)](#) — States initial footprint of 40,000 square feet within a 500,000-square-foot facility with 100,000 square feet reserved for expansion — the clearest building-scale evidence in the US capacity findings.
- [Unite.AI — Crusoe Opens Second Tulsa Plant to Build AI Data Center Components \(September 14, 2026\)](#) — Reports an opening date and 400,000 square feet in Tulsa, placing it beyond a site-selection announcement but requiring local permit verification to treat as confirmed.
- [Siemens — Siemens Invests for U.S. Data Center Manufacturing \(September 22, 2026\)](#) — Names busway as the primary production-capacity expansion in the Carolinas, making this more informative than a regional dollar figure alone — but the specific investment amount requires direct source verification, and no permit, square footage, or production start is stated.

SIGNAL 3 OF 7

Section 232 is migrating toward data-center power and cooling inputs through a proposed August 2026 derivative expansion and a known 2027 tariff-rate step-up — creating a compounding landed-cost risk for imported cable, heat-exchanger parts, and electrical equipment

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

A Federal Register proposal published August 6, 2026 would add electric conductor cables and heat-exchange unit parts to Section 232 derivative coverage, while the temporary 15% rate for specified industrial and electrical-grid equipment is scheduled to step up to 25% after December 31, 2027 — together creating a two-stage tariff inflection that prices imported liquid-cooling and power-distribution components progressively higher.

REASONING

The August 6 Federal Register proposal is documented in multiple independent trade-law sources and includes specific HTSUS codes covering electric conductor cables and parts of heat-exchange units — product categories that sit directly in data-center power distribution and liquid-cooling supply chains. The proposal has not been finalized in the findings, so no relocation effect can be attributed to it yet; but a published Federal Register proposal is a real regulatory event, not a rumor, and it sets the direction of travel. Layered on top of it, the Section 232 overhaul that already took effect April 6, 2026 moved the duty calculation to full customs value — meaning the cost basis on which any tariff percentage applies is now the entire product value, not just the metal content. And the temporary 15% rate for specified industrial and electrical-grid equipment is documented as expiring December 31, 2027, after which the stated rate transitions to 25%. Each of these is a real, sourced event; together they form a compounding exposure curve for importers of covered equipment and components. Confidence is held at Medium because the August proposal is not yet final and the exact HTS scope of the 15% industrial-equipment tier is not confirmed product by product.

PATTERN

Federal Register (August 6, 2026) published a proposal to add 14 derivative articles to Section 232 coverage, including electric conductor cables at HTSUS codes 8544.49.2000, 8544.49.3040, 8544.49.3080, 8544.60.4000, and parts of heat-exchange units at 8419.90.3000, with proposed tariffs cited as generally 25%. The rolling Federal Register notice mechanism replaced the prior submission windows as of April 6, 2026, allowing derivative-category additions at any time without a scheduled window. The April 2026 proclamation established that Section 232 duties now apply to the full customs value of covered products, regardless of metal content, for goods entered on or after April 6, 2026. Federal Register (June 4, 2026) confirmed that the 15% rate for specified aluminum and steel articles applies through December 31, 2027, after which covered products transition to 25% under Annex I-B. White and Case analysis states the same expiry and transition.

IMPLICATION

An importer of liquid-cooling assemblies or high-current cable that is currently pricing its supply chain against a 15% effective rate faces a documented 25% rate after 2027 if the equipment falls under the relevant annex — and potentially an earlier repricing if the August proposal is finalized and adds cable and heat-exchanger parts to derivative coverage. For a supplier deciding whether to source components from overseas or produce domestically, the 2027 expiry is a hard planning date, not a speculative risk. Customers evaluating multi-year supply agreements should be pricing the post-2027 scenario now.

RECOMMENDED ACTION

Pull the full text of the August 6, 2026 Federal Register notice and confirm which of the 14 proposed derivative categories cover the specific HTSUS codes used by your cable and heat-exchanger inputs; then model the landed-cost delta at both the proposed 25% rate and the post-2027 step-up to determine which product lines cross the threshold where domestic or nearshore sourcing becomes cost-competitive.

SOURCES & WHAT THEY SIGNAL

- [ICPA — Section 232 Tariff Tracker \(updated September 21, 2026\)](#) — Confirms that the prior submission windows for derivative inclusions ended April 6, 2026, and that additions can now be made by Commerce and USTR jointly through Federal Register notice at any time — establishing the mechanism by which the August proposal could become effective.
- [AL&S International — Section 232 Is Expanding \(August–September 2026\)](#) — Identifies the August 6, 2026 proposal covering electric conductor cables and heat-exchange unit parts, lists specific HTSUS codes, and states proposed tariff rates.
- [White and Case — United States Modifies Steel, Aluminum and Copper Section 232 Tariffs](#) — Corroborates the December 31, 2027 expiry of the temporary 15% tier and the transition to 25% under Annex I-B, providing legal analysis that reinforces the regulatory reading.
- [Federal Register opportunity record — August 6, 2026 Section 232 derivative proposal](#) — Documents the formal Federal Register publication of the proposal covering electric conductor cables and parts of heat exchange units, with proposed tariffs ranging from 15% to 50% depending on product.
- [Federal Register — Strengthening Actions for Aluminum and Steel \(April 9, 2026\)](#) — Establishes that Section 232 duties now apply to full customs value, not just metal content, for covered products entered on or after April 6, 2026 — the base change that makes any percentage tariff more costly in absolute terms.
- [Federal Register — Adjusting Certain Tariff Rates for Aluminum and Steel Articles \(June 4, 2026\)](#) — Confirms that the 15% rate treatment applies through December 31, 2027, establishing the expiry date after which covered products transition to the higher rate.

SIGNAL 4 OF 7

The CDU vendor field is crowding rapidly across power tiers from 300 kW to 2.5 MW, with HVAC and electronics incumbents entering or expanding on a compressed timeline — raising the downside risk for capacity built to current architectural specifications

MEDIUM Short-term (3–12 months) · [Commercial & Market Signals](#) · [Review](#)

Within the July–September 2026 window, LG received NVIDIA qualification across three CDU power tiers, Nidec announced liquid-cooling CDU products at Data Centre World Asia, and Samsung opened an India cooling-manufacturing base — together constituting a fast-moving vendor-entry pattern in a product category the findings already flag as at risk of crowding.

REASONING

This watch explicitly calls out the CDU category as one already being warned about vendor-field thinning — but the evidence here points in the opposite direction: the vendor field is thickening, not thinning, which is a different kind of risk. Multiple independent sources document new product qualifications and geographic manufacturing entries in CDUs within the same reporting window. LG's sequential NVIDIA approvals across 600 kW (July), 1 MW (September), and 2.5 MW (September 22) represent a systematic product-range buildout by a consumer-electronics and HVAC incumbent that has not historically been a data-center cooling supplier. Nidec, an industrial-motor and electronics manufacturer, is simultaneously announcing CDU products at a trade event. Samsung's FläktGroup brand is opening an India facility specifically for precision cooling serving GPU racks. Trane/LiquidStack is already commercially active and had launched a 14 MW platform. The combined picture is a product category where entry barriers are lowering fast, NVIDIA qualification is acting as the common certification gateway, and the customer base — hyperscalers — is actively qualifying multiple vendors to avoid single-source dependency. The implication for any existing CDU supplier is margin compression through competition, and the implication for any buyer of CDU capacity is that today's 26-to-52-week lead time may not persist as long as the broader switchgear scarcity.

PATTERN

LG Electronics received NVIDIA approval for a 2.5 MW CDU on September 22, 2026, following earlier approvals for a 600 kW CDU in July and a 1 MW CDU in September. Nidec announced liquid-cooling CDU solutions at Data Centre World Asia on September 8, 2026. Trane Technologies confirmed on its Q2 2026 earnings call (July 30) that it is active in the CDU market through LiquidStack and had expanded its applied HVAC capacity four times in the preceding three years. Samsung Electronics opened a FläktGroup manufacturing plant in Pune, India, reported August 13, 2026, described as producing precision-cooling equipment for GPU racks requiring 120 kW liquid cooling.

IMPLICATION

A liquid-cooling category that was supply-constrained 12 months ago is now attracting simultaneous product entry from LG, Nidec, Samsung/FläktGroup, and Trane — all within weeks of each other. When NVIDIA qualification becomes the standard entry credential and multiple incumbents from adjacent industries

achieve it in rapid succession, pricing power for existing CDU suppliers will compress before physical capacity does. Any supplier or investor sizing CDU manufacturing capacity against current lead times needs to model a scenario where those lead times halve within 18 to 24 months as this vendor cohort reaches production.

RECOMMENDED ACTION

Map the NVIDIA CDU qualification pipeline — which vendors have applied, which have received approval, and at which power tiers — to understand how fast the approved-vendor list is expanding; a rapidly growing list is the earliest market signal that the CDU shortage will resolve faster than switchgear and transformer shortages, which do not have an equivalent certification accelerant.

SOURCES & WHAT THEY SIGNAL

- [Facilities Dive — Trane managing capacity as commercial HVAC demand surges \(July 30, 2026\)](#) — Confirms Trane/LiquidStack is active in CDUs and has expanded HVAC capacity four times in three years, establishing a well-resourced incumbent as a competitor in the category.
- [Asiae — LG Electronics receives NVIDIA approval for 2.5 MW CDU \(September 22, 2026\)](#) — Documents LG's third NVIDIA CDU qualification in the period, covering 2.5 MW and confirming a systematic power-tier buildout by an adjacent-industry incumbent.
- [Nidec — Liquid Cooling Solutions Announcement at Data Centre World Asia \(September 8, 2026\)](#) — Documents Nidec's entry into the CDU market with liquid-cooling products announced at Data Centre World Asia, adding another industrial-adjacent incumbent to the vendor field.
- [Aju Press — LG CDU qualification reporting \(September 22, 2026\)](#) — Corroborates LG's 2.5 MW CDU NVIDIA approval, providing an independent Korean-language industry source for the same event.
- [MT — LG CDU qualification reporting \(September 22, 2026\)](#) — Third independent source for LG's NVIDIA CDU qualification sequence, confirming across multiple outlets that the approvals at 600 kW, 1 MW, and 2.5 MW are a deliberate product-range expansion.
- [Tech Times — Samsung Opens India Liquid Cooling Hub \(August 13, 2026\)](#) — Reports Samsung/FläktGroup opening an India manufacturing facility for precision-cooling equipment serving GPU racks, adding a geographic footprint move to the vendor-entry pattern.

SIGNAL 5 OF 7

Southeast Asia is consolidating as an active data-center hardware manufacturing base, with a reported Vertiv opening in Johor and a RM190 million switchgear order placing that geography ahead of announced-but-unbuilt alternatives

MEDIUM Short-term (3–12 months) • Infrastructure & Supply Chain Signals • Verified

A reported 236,000-square-foot Vertiv facility opening in Senai, Johor in July 2026 and a RM190 million switchgear contract awarded to Powerwell for a Johor data-center project together indicate that Malaysia has moved past site-selection stage into operating or near-operating data-center supply-chain infrastructure.

REASONING

This watch specifically flags contract manufacturers and ODMs standing up lines in Southeast Asia as a footprint-move category to watch. The Vertiv Johor facility is reported with a named municipality (Senai), a square footage (236,000), and an opening period (July 2026), which places it ahead of a generic site-selection announcement — but the source is a market-intelligence report rather than a permit or government filing, so it requires independent verification. The Powerwell contract is a customer-backed order for switchgear, evidencing actual demand from a data-center customer in the same geography. Together they point to Johor as a geography where both supply (manufacturing) and demand (hyperscaler data-center build) are simultaneously materializing. Confidence is held at Medium because neither finding is backed by a permit, equipment order, or government filing in the retrieved material — Vertiv's opening is reported by a market-intelligence publication, and Powerwell's contract states no customer identity, plant location, or capacity-reservation detail.

PATTERN

Mordor Intelligence (August 13, 2026) states that Vertiv opened a 236,000-square-foot manufacturing facility in Senai, Johor in July 2026, producing power and cooling infrastructure for regional fulfillment and localized configuration. The Edge Malaysia (September 21, 2026) reports that Powerwell Holdings secured two contracts worth RM190.42 million to supply low-voltage switchgear and related equipment for a data-center project in Johor.

IMPLICATION

Johor is becoming a dual-sided data-center supply chain node — manufacturing capacity opening and hyperscaler procurement happening in the same geography and the same month. For a US supplier or tariff strategist, this matters because Southeast Asian manufacturing that serves regional hyperscaler demand may or may not be subject to US tariff rules depending on where the finished product is ultimately shipped. The Section 232 full-customs-value change and the 15% industrial-equipment tier make the landed-cost calculation for US-destined imports from Malaysia materially different from pre-2026 baselines. The Powerwell contract also establishes that LV switchgear procurement in the region is real and moving — not forecast-dependent.

RECOMMENDED ACTION

Verify Vertiv's Johor facility against Malaysian Industrial Development Authority records or Johor permit databases, and confirm whether the Powerwell Johor switchgear project is for a US-headquartered hyperscaler — because if US customers are procuring switchgear in Malaysia for facilities there, the tariff and credit-eligibility rules that apply to US-domestic projects do not govern those contracts.

SOURCES & WHAT THEY SIGNAL

- [The Edge Malaysia — Powerwell wins RM190.42 million Johor data-center switchgear contracts \(September 21, 2026\)](#) — Documents a customer-backed order for LV switchgear in Johor, establishing that procurement demand — not just manufacturing supply — is materializing in the same geography.
- [Mordor Intelligence — Malaysia Data Center Rack Market Report \(August 13, 2026\)](#) — States that Vertiv opened a 236,000-square-foot manufacturing facility in Senai, Johor in July 2026 for power and cooling infrastructure, providing the clearest geographic footprint evidence in Southeast Asia.

SIGNAL 6 OF 7

US machine-tool orders in July 2026 were up 55% year-over-year, reported by American Machinist — a strong forward signal that fabrication-capacity investment is accelerating and is likely to add press-brake, laser-cutting, and metalworking capacity within 6 to 18 months

MEDIUM Short-term (3–12 months) • Infrastructure & Supply Chain Signals • Review

New metalworking-machinery orders of 605.8 million dollars in July 2026 represent a 55.2% increase from July 2025, as reported by American Machinist, suggesting that manufacturers are converting their capacity-expansion intentions into equipment orders at a rate not seen in the current cycle.

REASONING

Machine-tool orders are a leading indicator of fabrication capacity: equipment ordered today typically installs in 6 to 18 months, and a 55% year-over-year increase in a single month is not noise. American Machinist reports the figure of 605.8 million dollars for July 2026. The 8% month-over-month decline from June is noted but does not undermine the signal: year-over-year growth of 55% on a base that was already elevated in July 2025 indicates sustained investment momentum. This is consistent with the documented plant announcements (AMET, Crusoe, Siemens) and with the broader scarcity environment in electrical equipment. The limitation is that it is not possible to confirm from the available findings whether the USMTO data breaks down orders by end-use sector, so it cannot be stated definitively that the orders are specifically for data-center enclosure or electrical-equipment fabrication capacity. The signal is therefore about the direction and scale of manufacturing investment generally, interpreted in the context of documented data-center supply tightness.

PATTERN

American Machinist (published September 15, 2026) reports US machine-tool orders of 605.8 million dollars in July 2026, down 8.0% from June but up 55.2% from July 2025.

IMPLICATION

A 55% year-over-year surge in machine-tool orders, sustained across multiple months, means that US fabrication capacity is in active expansion. Given the documented 40-to-60-week switchgear lead times and the three named US plant announcements in the same period, the machine-tool orders may be partially directed at electrical-equipment and data-center hardware fabrication. Suppliers that need to add press brakes, fibre lasers, or turret punches are competing for delivery slots on those machines — the Section 232 open investigation into robotics and industrial machinery, noted in this watch as a price risk for fabrication equipment, is therefore directly relevant to the cost of adding this capacity.

RECOMMENDED ACTION

Request a sector-level breakdown from AMT or a participating machine-tool distributor to determine what share of July orders was placed by electrical-equipment, enclosure, and sheet-metal fabricators — this would confirm whether the aggregate signal is translating into the specific product categories under monitoring.

Also confirm whether AMT's USMTO release independently corroborates the 605.8 million dollar figure, as this could not be verified from retrieved sources.

SOURCES & WHAT THEY SIGNAL

- [American Machinist — U.S. Machine Tool Orders Still Rising \(September 15, 2026\)](#) — Reports July 2026 machine-tool orders at 605.8 million dollars, up 55.2% from July 2025, establishing the scale of the year-over-year investment surge.

SIGNAL 7 OF 7

FEOC and material-assistance restrictions under 45X, 45Y, and 48E are now in active implementation with no product-specific safe-harbor tables yet published — creating a compliance gap that redirects sourcing decisions toward non-prohibited-entity supply chains without clear guidance on which data-center hardware qualifies

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

Treasury, IRS, and the Federal Register have established the material-assistance cost-ratio framework and made it effective for tax years beginning after July 4, 2025, but the safe-harbor tables that would tell a manufacturer whether its specific components qualify have not yet been published — leaving suppliers and their customers in a compliance limbo that functionally pressures them toward domestic or allied-nation sourcing as a precautionary measure.

REASONING

The IRS and Treasury have issued multiple pieces of binding guidance that collectively establish the FEOC material-assistance framework: IRS Notice 2026-15 applies the restriction to 48E qualified facilities and interconnection property; Internal Revenue Bulletin 2026-11 sets out the cost-ratio test and the reliance period for 45Y and 48E; Form 7207 instructions confirm that 45X is restricted both at the taxpayer level (no specified foreign entity may claim or receive the credit) and at the component level (no eligible component may contain prohibited-foreign-entity material assistance). The IRS's July 14, 2026 explanatory release confirms the restrictions apply after the July 4, 2025 enactment date. Taken together, these are not proposals — they are active interim rules that manufacturers must comply with now. The gap is that the forthcoming safe-harbor tables, which would give product-category-specific cost-ratio thresholds, have not been published in the retrieved findings. Taxpayers may rely on the bulletin's guidance until 60 days after those tables are published in the Federal Register. This creates a window where a manufacturer that sources any component from a prohibited foreign entity — which includes Chinese entities in most readings — faces credit disqualification risk that it cannot fully model. The practical response for any supplier seeking to remain eligible for, or to supply into projects eligible for, 45X or 48E credits is to treat the restriction as operative now and source accordingly. Confidence is held at Medium because the rules are real and sourced but the product-specific application remains unresolved.

PATTERN

IRS Notice 2026-15 (August 17, 2026 update) states that under Section 48E(b)(6), a qualified facility and qualified interconnection property do not include facilities or property whose construction begins after December 31, 2025 if they include material assistance from a prohibited foreign entity, and applies the material-assistance cost-ratio test to 45Y, 48E, and 45X. Internal Revenue Bulletin 2026-11 (March 9, 2026; updated September 22, 2026) states that taxpayers may rely on its guidance for 45Y and 48E facilities beginning construction after December 31, 2025 until 60 days after publication of forthcoming safe-harbor tables in the Federal Register. Form 7207 instructions (December 2025; updated September 22, 2026) state

that for tax years beginning after July 4, 2025, the 45X credit is unavailable if the taxpayer is a specified foreign entity or if an eligible component contains material assistance from a prohibited foreign entity. The IRS business-tax-provisions explanation (July 14, 2026) confirms that a specified foreign entity cannot claim or receive a transfer of the 45X credit and that a component does not qualify if it includes prohibited-foreign-entity material assistance.

IMPLICATION

Any data-center project seeking to qualify for 48E investment tax credits — which applies to qualifying facilities including energy-storage technology and interconnection property — must now demonstrate that its hardware supply chain does not include material assistance from prohibited foreign entities, with no published safe-harbor table yet available to define the threshold. This is a real sourcing constraint operative today, not a future risk. Suppliers that source enclosures, busway, switchgear, CDUs, or cable assemblies with Chinese-origin inputs face a direct question about whether their customers' projects remain credit-eligible — and the answer affects whether the customer places or maintains the supply agreement.

RECOMMENDED ACTION

Publish a FEOC-readiness statement for each product line — identifying which inputs come from prohibited-foreign-entity sources and calculating the material-assistance cost ratio for each — so that when the IRS safe-harbor tables are published, the supplier can immediately confirm or remediate eligibility rather than retracing the supply chain under time pressure.

SOURCES & WHAT THEY SIGNAL

- [IRS — Internal Revenue Bulletin 2026-11 \(March 9, 2026; updated September 22, 2026\)](#) — Sets out the material-assistance cost-ratio framework and the interim reliance period for 45Y and 48E, establishing the compliance gap between current rules and forthcoming safe-harbor tables.
- [IRS — Notice 2026-15 \(August 17, 2026\)](#) — Applies the material-assistance restriction explicitly to 48E qualified facilities and qualified interconnection property, establishing that electrical infrastructure components in data-center projects face the FEOC test.
- [IRS — Instructions for Form 7207 \(December 2025; updated September 22, 2026\)](#) — Confirms that 45X is restricted at both the taxpayer level (specified foreign entity) and component level (prohibited-foreign-entity material assistance) for tax years beginning after July 4, 2025.
- [IRS — Business Tax Provisions Video Text Script \(July 14, 2026\)](#) — Provides official IRS plain-language confirmation that specified foreign entities cannot claim or receive 45X credits and that components with prohibited-foreign-entity material assistance do not qualify.

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