CHANG ROBOTICS

The Economics of Speed

How Automation and Speed Help American Manufacturers **Outcompete China and Vietnam**

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In an illustrative comparison, commissioning moves from month 48 to month 36, a 25% compression.

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Executive Summary

In April 2025, China imposed export controls on seven heavy rare earth elements and on finished magnets. Within weeks, Western automakers were struggling to source the magnets their motors depend on. Rebuilding that capacity in the United States will take years. That asymmetry, in which supply can be cut off in weeks while replacement capacity takes years to finance, equip, commission, and ramp, is now the central problem of reshoring. The schedule, not just the cost, decides whether a project succeeds.

The cost case for domestic production has improved. Boston Consulting Group's 2026 study of 1,000 manufacturers finds that advanced production systems deliver productivity gains of up to 60 percent, enough for makers of engineered components to reach cost parity, although electronics and battery cells still face gaps of about 15 percentage points. For strategically exposed products, the questions that matter are landed, risk adjusted cost and how quickly new capacity reaches qualified output.

That speed increasingly depends on equipment deliveries, not construction. Power transformer lead times averaged 128 weeks in Wood Mackenzie's 2025 survey and now reach up to four years; switchgear averaged 44 weeks. Under a conventional sequential EPC process, purchase orders wait for design freeze, so these lead times land directly on the critical path.

Chang Robotics' response is parallel path procurement: releasing carefully bounded long lead commitments, such as switchgear, power distribution, and robotic automation cells, as soon as the specifications that govern them are stable, rather than after total design freeze, and having vendors fabricate while design and civil work proceed. **The method does not shorten lead times. It changes when they start.**

Speed has measurable value. In an illustrative comparison, commissioning moves from month 48 to month 36, a 25 percent compression. In a separate hypothetical model, advancing a ten year, $100 million per year cash flow stream by one year adds about $42 million of present value at a 10 percent discount rate, or roughly $32 million after illustrative early commitment costs and risk. These are worked examples, not forecasts for any specific project.

The stakes are visible in a current project. In September 2026, USA Rare Earth broke ground on an approximately $1.2 billion, 800,000-square foot metal and magnet plant in Blacksburg, South Carolina, targeting 6,400 metric tons per year of sintered NdFeB magnets, with commissioning targeted to begin in 2028. Chang Robotics is the project's named partner for advanced manufacturing, automation, and robotics.

The Bottom Line

Competing with China and emerging rivals such as Vietnam takes more than matching their costs. Automation and smart manufacturing raise productivity and margins; speed brings that capacity online sooner, so manufacturers start earning those margins and building market momentum while competitors are still responding. For long lead industrial projects, procurement is not an administrative step between engineering and construction. It is a capital allocation and strategic timing discipline that should begin at concept definition, under explicit risk controls.

Decisions at a Glance

Table 1. Conventional sequence versus disciplined parallel path

	Conventional sequence	Disciplined parallel path
Order timing	Long-lead orders follow broad design freeze	Selected orders release once critical interfaces and scope are stable
Supplier production	Runs after engineering is complete	Overlaps remaining design and civil work
Critical path	Lead times dominate the schedule	Lead times are partly removed from the critical path
Primary risk	Late delivery and schedule slip	Early-commitment and change risk, which must be governed

1

The Reshoring Speed Gap

Key Takeaway:

Automation and smart manufacturing are closing the cost gap with China and other low cost producers, so the deciding factor is now how fast new capacity can be built, equipped, and qualified.

1.1 A supply shock moves faster than a factory

1.2 Cost parity is real, but not uniform

1.3 Long lead equipment now sets the pace



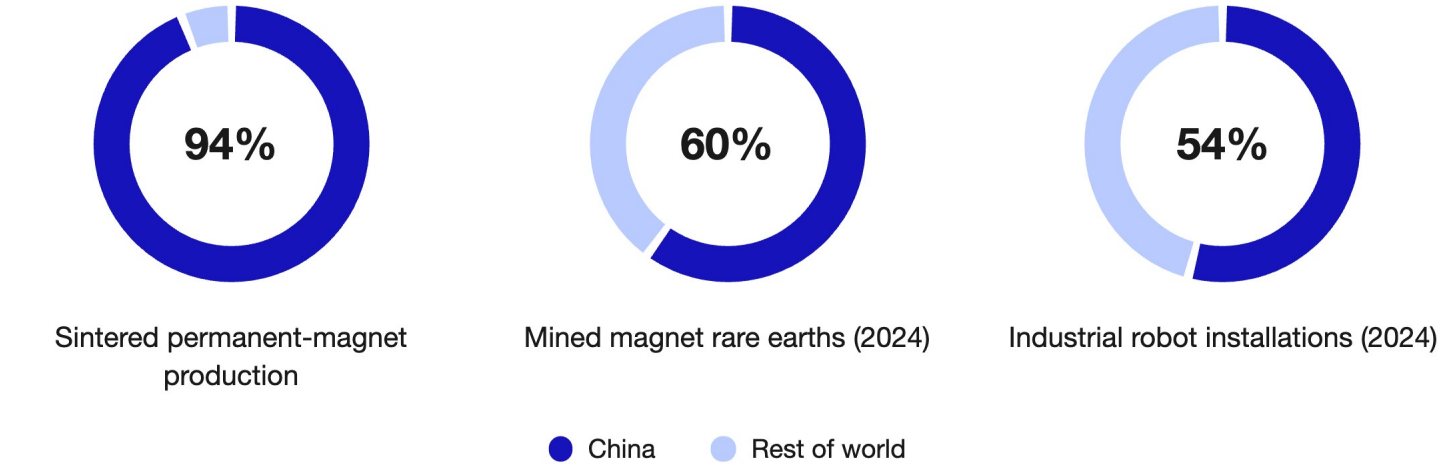
1.1 A supply shock moves faster than a factory

In 2025, supply concentration turned from a theoretical risk into an actual supply failure. In April, China imposed export controls on seven heavy rare earth elements, their compounds, and finished magnets. Exports fell sharply in April and May, and automakers struggled to source magnets. In October, China announced restrictions on five more elements, then suspended them for one year in November. The International Energy Agency (IEA) estimates that, if fully implemented, Chinese export controls would put roughly $6.5 trillion of annual downstream economic output outside China at risk.

The concentration behind that leverage is extreme. According to the IEA's 2026 report on rare earth supply chains, China accounted for 60 percent of global mined production of magnet rare earths in 2024 and 94 percent of global sintered permanent magnet production, up from roughly 50 percent two decades ago. Automation at scale reinforces that position: the International Federation of Robotics reports that China installed 295,000 industrial robots in 2024, 54 percent of the 542,000 installed worldwide.

The exposure extends well beyond magnets. The McKinsey Global Institute tested $3 trillion in annual US manufactured imports against three vulnerabilities: national security criticality, high supplier concentration, and sourcing from geopolitically distant countries. It found that 25 percent of those imports face at least two vulnerabilities, while 5 percent, mostly electronic products and key materials such as rare earth magnets, are exposed to all three.

Figure 1. China's share of critical links in the magnet value chain



Sources: IEA, Rare Earth Elements: Pathways to Secure and Diversified Supply Chains (2026); IFR, World Robotics 2025.

Figure 2. US manufactured imports by dependency exposure (annual value)



Source: McKinsey Global Institute, Ramping Up Manufacturing in America? (May 2026). Dollar values derived from the reported percentages of ~$3 trillion.

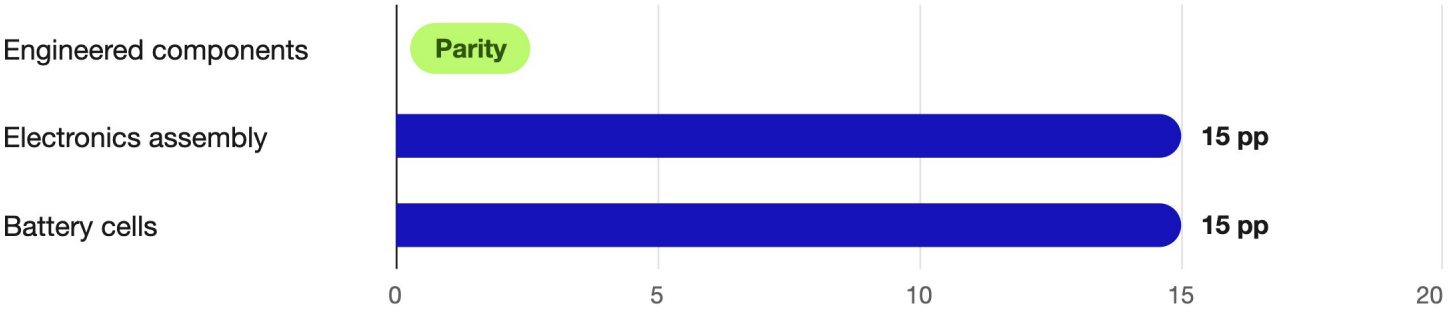
The result is a mismatch between the speed of disruption and the speed of response. An export licensing shock can affect deliveries in weeks. Domestic capacity must pass through engineering, equipment allocation, utilities, construction, tooling qualification, operating validation, and customer approval.

1.2 Cost parity is real, but not uniform

Recent independent research challenges the longstanding assumption that American production is structurally more expensive than offshore production. Boston Consulting Group and the BCG Institute, in How the Factory of the Future Is Reshaping the Economics of Manufacturing Competitiveness (May 2026), combine a survey of 1,000 manufacturers with an index of 42 cost and qualitative factors. They find that advanced production systems deliver productivity gains of up to 60 percent and are narrowing, and in some cases reversing, the cost gap between high cost and low cost countries.

The results vary by sector. Engineered components can reach competitiveness parity through factory upgrades, and US automotive production serving the domestic market secures a durable advantage regardless of tariff conditions. Electronics and battery cells, however, still face gaps of about 15 percentage points against China even with full deployment.

Figure 3. Remaining cost gap versus China after a Factory of the Future upgrade (percentage points)



Source: BCG and BCG Institute (May 2026).

BCG's index treats logistics and tariffs as direct cost factors alongside labor, energy, and materials. The relevant comparison is therefore not the unit cost leaving an offshore factory, but the landed, risk adjusted cost delivered to an American customer. Where domestic capacity closes a strategic dependency, schedule has independent economic value, even when operating cost parity is incomplete.

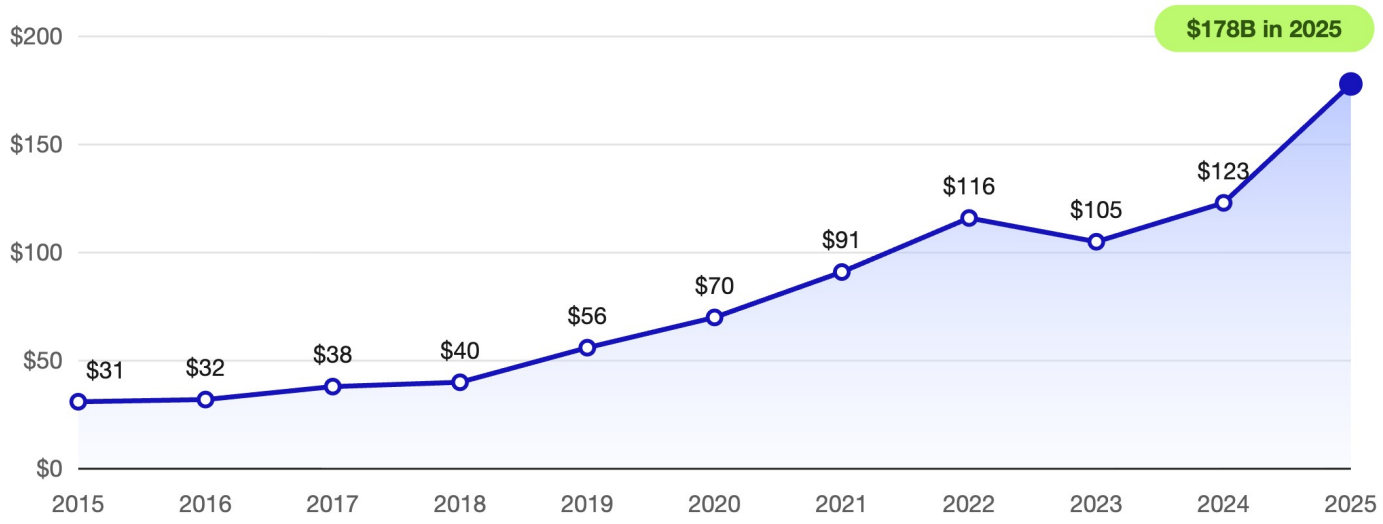
China is not the only competitor gaining ground. Vietnam has become one of the fastest rising manufacturing exporters to the United States. The US goods trade deficit with Vietnam grew from $30.9 billion in 2015 to $178.3 billion in 2025, nearly six times larger in a decade, and reached $163.9 billion in just the first eight months of 2026. Low cost competition is not shrinking; it is moving. Automation and speed are what let American capacity compete wherever the next rival emerges.

Table 2. Sector reshoring outlook

Sector	Factory of the Future impact	Reshoring outlook
Automotive and industrial subsystems	Up to 60% productivity gain; durable US advantage	High
Engineered precision components	Closes the conversion cost gap; parity	High
Battery cells	Lower scrap, faster cycles; 15 pp gap remains	Moderate; needs local clusters
Electronics assembly	Cobots widen automatable work; 15 pp gap remains	Selective; defense niches
Sintered rare earth magnets	Automated sintering and quality assurance	Critical

Impact and cost gap figures from BCG (2026); outlook ratings are the author's assessment.

Figure 4. US goods trade deficit with Vietnam, 2015 to 2025 ($ billions)

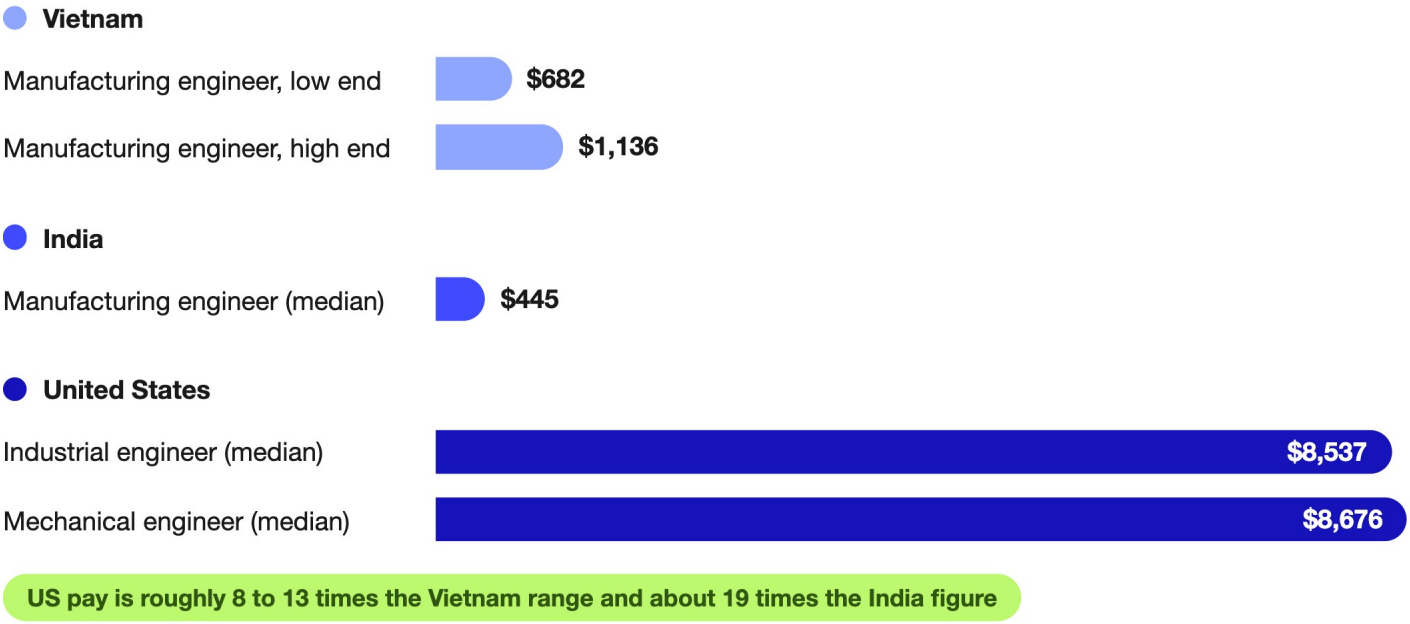


Source: US Census Bureau, Trade in Goods with Vietnam (accessed October 2026). Nominal dollars, not seasonally adjusted. January to August 2026 deficit: $163.9 billion.

The engineering wage gap shows why that competition is so hard to meet on labor cost alone. In Vietnam, manufacturing engineers typically earn VND 18 to 30 million a month, roughly $680 to $1,140. In India, the typical base salary for a manufacturing engineer is about ₹515,000 a year, roughly $445 a month. In the United States, the median industrial engineer earns about $8,540 a month and the median mechanical engineer about $8,680, roughly 8 to 13 times the Vietnam range and about 19 times the India figure. No American plant will close that gap through wages. It closes it the way BCG's research describes: by using automation and smart technology to multiply the output of every engineer and every unit of labor, and by using speed to reach customers first.



Figure 5. Monthly base pay for manufacturing engineers, Vietnam, India, and the United States (US$)



US pay is roughly 8 to 13 times the Vietnam range and about 19 times the India figure

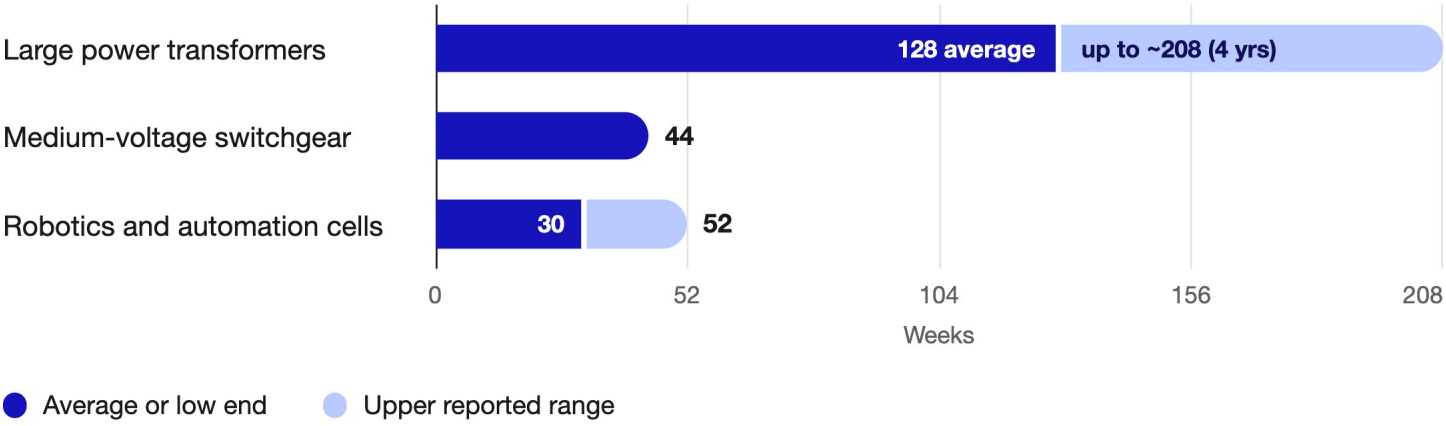
Sources: Ascentium, Labour Cost in Vietnam 2026 (2025 sector data: manufacturing engineering, VND 18 to 30 million per month); PayScale, Average Manufacturing Engineer Salary in India (accessed October 2026; average base salary ₹515,372 per year ÷ 12; salaries reported by users); US Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2025 (median annual wage ÷ 12: industrial engineers $102,440; mechanical engineers $104,110). Base pay only; excludes benefits, social insurance, and bonuses. VND converted at about 26,400 per US$; INR converted at 96.57 per US$ (Business Standard, 7 October 2026).

1.3 Long lead equipment now sets the pace

In the United States, equipment lead times on industrial projects often exceed the time needed to build the facility itself. Wood Mackenzie's 2025 survey of the transmission and distribution sector found power transformer lead times averaging 128 weeks, nearly 2.5 years, and switchgear averaging 44 weeks. Domestic manufacturing construction spending, which rose 96 percent over the preceding three years, is part of the demand pressure. By May 2026, high capacity transformer lead times reached up to four years, and some developers were buying production slots at a premium before selecting a site.

Even short lead materials are stretching. Steel mill lead times held at extended levels in September 2026, and plate lead times reached a record high in October 2026, with some plate mill lead times extending into early 2027.

Figure 6. Lead times for long lead equipment (weeks)



Sources: Wood Mackenzie (2025); Reuters Events via pv magazine USA (May 2026). Robotics range is the author's estimate based on integration complexity.

Table 3. Long lead categories and the parallel path response

Category	Current lead time	Parallel path response
Large power transformers	128 weeks average; up to 4 years	Reserve production slots during conceptual engineering
Medium-voltage switchgear	44 weeks average	Release on standardized, early-release specifications
Robotics and automation cells	30 to 52 weeks (author's estimate)	Vendor fabrication and testing during civil work
Steel sheet and plate	Extended; plate at record high (Oct 2026)	Early mill reservations and flexible framing

Sources: Wood Mackenzie (2025); Reuters Events (2026); Steel Market Update (2026); Ryerson (2026).

> When electrical gear takes more than a year and transformers up to four, a sequential process that releases purchase orders only after detailed design guarantees delay. Faster concrete curing or tighter site labor cannot recover that time. Only decoupling long lead procurement from final design freeze can.

2

The Economics of Schedule Compression

Key Takeaway:

Value arrives when qualified output reaches paying customers, so every month removed from the schedule has a price. Earlier output means earlier margins and an earlier claim on market share.

2.1 A supply shock moves faster than a factory

2.2 Cost parity is real, but not uniform



A project does not generate commercial value when concrete is poured; it does so when qualified output is delivered to paying customers. Earlier startup can shift revenue and cash receipts forward, reduce exposure to construction inflation, preserve scarce market windows, and allow investors to recycle capital sooner. Those benefits must be weighed against deposits, financing costs, redesign exposure, cancellation penalties, inventory carry, and operating ramp constraints.

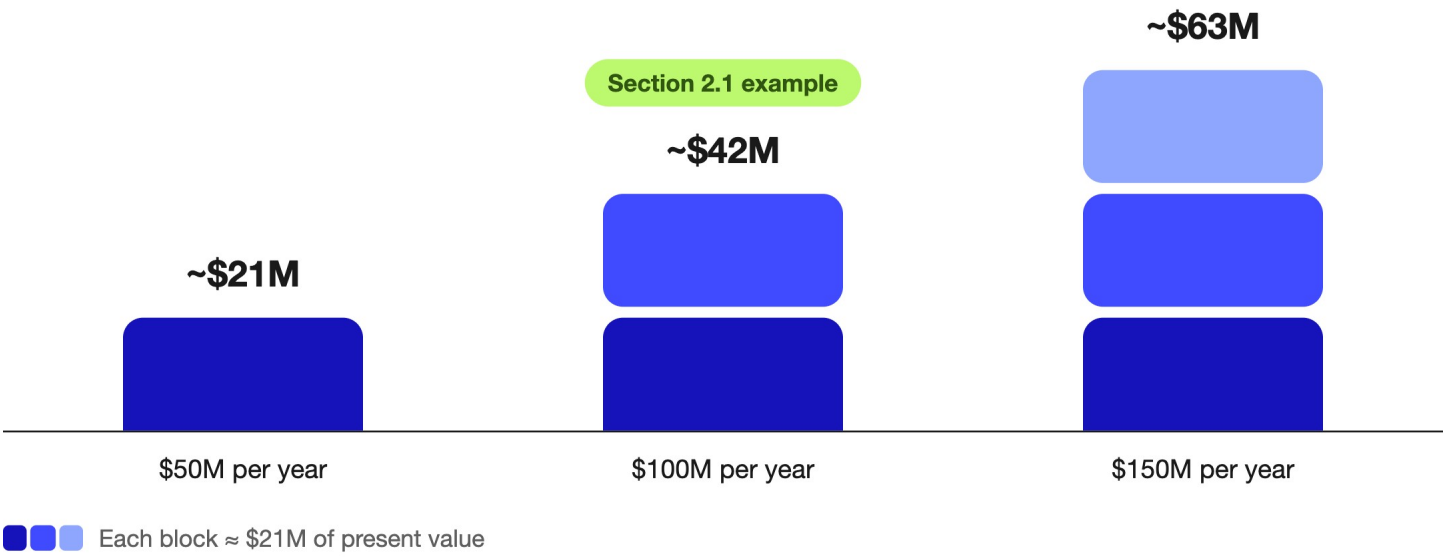
2.1 An illustrative one year acceleration

In the United States, equipment lead times on industrial projects often exceed the time needed to build the facility itself. Wood Mackenzie's 2025 survey of the transmission and distribution sector found power transformer lead times averaging 128 weeks, nearly 2.5 years, and switchgear averaging 44 weeks. Domestic manufacturing construction spending, which rose 96 percent over the preceding three years, is part of the demand pressure. By May 2026, high capacity transformer lead times reached up to four years, and some developers were buying production slots at a premium before selecting a site.

$$\Delta PV = \$100M \times [(1 - 1/1.1010) / 0.10] \times [1/1.103 - 1/1.104] \approx \$42.0M$$

Because the timing value scales with the size of the cash flow stream, larger projects gain proportionally more from each month removed from the schedule.

Figure 7. Present value gain from a one year acceleration, by annual free cash flow (illustrative)



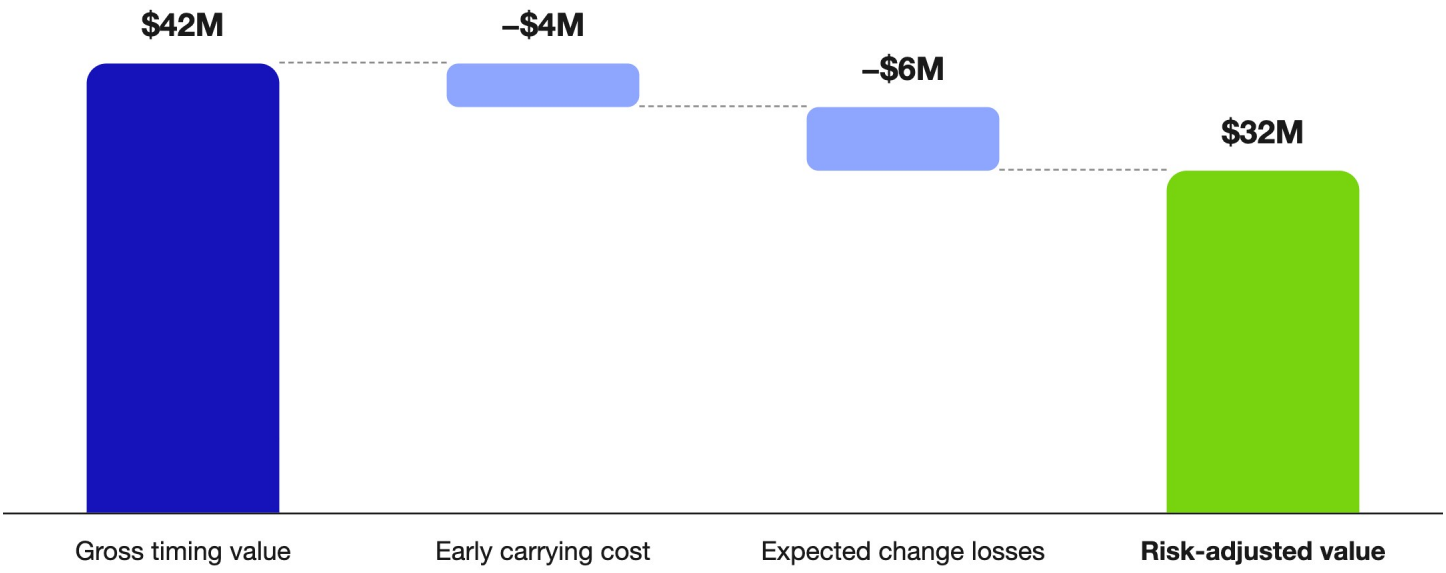
Hypothetical model: ten annual cash flows, 10 percent discount rate, one year shift. Not a forecast for any project.

2.2 Net of early commitment cost and risk

Acceleration is not free. Suppose, for illustration only, that achieving the one year shift requires deploying $50 million of capital one year earlier at an 8 percent cost of capital, an incremental carrying cost of about $4 million. Suppose further that change related losses of $30 million occur in a downside case with a 20 percent probability, an expected loss of $6 million. The risk adjusted timing value is then about $32 million.

The financial case changes materially if volume ramps gradually, customers require lengthy qualification, or downstream constraints absorb part of the acceleration. Owners should model monthly or quarterly cash flows from first qualified production rather than assume full rate profitability at commissioning.

Figure 8. From gross timing value to risk adjusted value ($ millions, illustrative)



All inputs are hypothetical and chosen only to demonstrate the investment logic; they are not observed performance, supplier terms, or Chang Robotics estimates.

The investment rule: not “buy sooner at any cost,” but advance a commitment only when its expected schedule value exceeds its full expected cost, including downside contingencies.

3

Why Sequential Execution Loses Time

Key Takeaway:

Parallel execution does not shorten a transformer’s fabrication cycle. It moves that cycle earlier, so less of it happens after the building is ready.

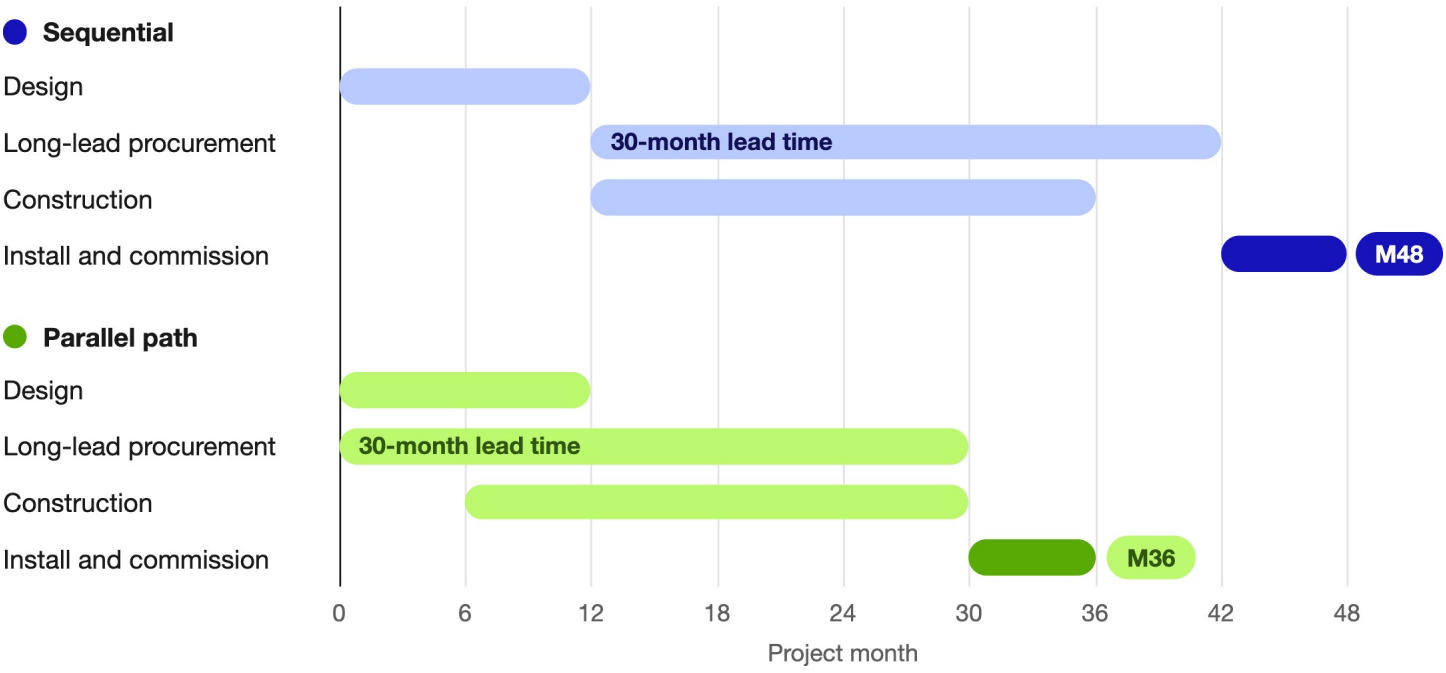


A conventional engineering, procurement, and construction (EPC) sequence moves from concept and detailed design to final equipment specifications, purchase orders, fabrication, installation, and commissioning. Some sequencing is necessary. The problem arises when a project applies the same final design requirement to items whose governing interfaces were settled much earlier, such as a plant's load profile and service voltage.

The critical path test must distinguish procurement duration from procurement timing. Schedule compression exists only if an earlier release actually moves the final commissioning milestone and no other activity, such as permitting, utility service, or construction, becomes controlling.

Figure 9 shows the effect on a simplified schedule. In the sequential case, long lead orders wait for design freeze at month 12, so a 30 month transformer lead time, close to Wood Mackenzie's 128 week average, pushes commissioning to month 48. In the parallel path case, the same orders are placed during conceptual engineering, fabrication runs alongside design and civil work, and commissioning finishes at month 36.

Figure 9. Sequential versus parallel path schedule (illustrative, months)



Result: 12 months removed, a 25 percent compression, without shortening any single supplier's lead time.

Illustrative schedule only. A validated critical path network, procurement register, utility availability, permitting status, and resource loaded baseline are needed before attributing a reduction to a real project.

Result: 12 months removed, a 25 percent compression, without shortening any single supplier's lead time.

4

The Parallel Path Method

Key Takeaway:

Release long lead orders before design freeze, but only under disciplined gates, so equipment lead times come off the critical path without creating rework.

4.1 Four core practices

4.2 Match commitment speed to reversibility

4.3 Six decision gates

4.4 Governance that prevents rework



Parallel path procurement separates the purchase of long lead equipment from final design freeze. A conventional project runs in sequence: design, then buy, then build. A parallel path project runs design, procurement, and construction as overlapping tracks, releasing each long lead commitment as soon as the information needed to specify it is stable.

4.1 Four core practices

Four core practices put the method into practice. The first is to reserve electrical capacity early: commit to transformer and switchgear production slots during conceptual engineering, once the plant's load profile and service voltage are known, rather than after the site layout is final. The second is to standardize electrical specifications: release medium voltage switchgear and distribution gear on standardized, early release specifications so orders can be placed before downstream design details are settled.

The third practice is to build automation in parallel: have robotics and automation vendors fabricate and test cells and end effectors in their own shops while foundations and the building enclosure go up, so integration begins as soon as the space is ready. The fourth is to secure steel with flexible framing: reserve mill capacity early and use structural framing that can absorb late changes in equipment layout without reordering material.

4.2 Match commitment speed to reversibility

Not all equipment should be committed with the same speed. A slot reservation or refundable deposit can preserve schedule optionality at far less risk than an irreversible custom build. Early purchase is strongest where specifications are mature, interfaces are standardized, multiple integration paths remain available, and delay would otherwise dominate the critical path.

Table 4. Commitment posture by reversibility

Commitment posture	Candidate examples	Required control
Early reservation	Transformer production slot; vendor engineering capacity	Cancellation rights, configuration range, documented schedule need
Early release with bounded interfaces	Standardized switchgear; modular automation cells	Signed interface control document and change authority
Defer pending final design	Highly specialized process machinery; unique foundations	Confirm irreversible dependencies and qualification requirements

4.3 Six decision gates

Each early commitment passes through explicit gates, so speed never outruns evidence.

Table 5. Parallel path decision gates

Gate	Required decision evidence	Accountable decision
G0 Strategic schedule baseline	Critical-path network, project economics, long-lead register	Owner or program sponsor sets the target
G1 Interface maturity	Verified load profile, envelope, utility loads, environmental constraints	Engineering authority signs bounded scope
G2 Supplier and commercial readiness	Multiple quotations or justified sole source; slot reservation terms	Procurement and commercial leads approve terms
G3 Controlled early release	Frozen interface control document, funding authority, technical review	Owner authorizes purchase or slot reservation
G4 Fabricate and verify	Factory milestones, design reviews, inspection and test plan	Supplier and integration lead track progress
G5 Site acceptance and ramp	Installation readiness, FAT/SAT results, safety validation	Operations accepts productive capacity

4.4 Governance that prevents rework

Early commitment is only half the method. The other half is the governance that keeps early decisions from turning into rework. Engineering, procurement, construction, controls integration, and operations share one resource loaded master schedule, and each early release item carries an “information required to order” date and a “latest safe order” date.

Five controls support that schedule. The team defines the technical configuration frozen at release and assigns ownership for any later design change. It uses modular, nonproprietary interfaces to reduce supplier lock-in and downstream rework. It separates reservation fees, progress payments, cancellation charges, escalation clauses, and acceptance milestones in the capital model. It requires independent schedule risk review when early release is proposed without complete design information. And it predefines stop, change, and fallback decisions so schedule pressure never silently overrides safety or performance requirements.

The objective is not to bypass engineering discipline. It is to move irreversible decisions to the earliest point at which sufficient evidence exists, and to retain flexibility everywhere else.

5

Rare Earth Magnets: The Strategic Test Case

Key Takeaway:

Domestic magnet capacity ramps in quarters, while export controls reshape supply in weeks. That mismatch makes project speed the decisive strategic variable.

5.1 Domestic capacity is ramping, in phases

5.2 Blacksburg: from proposal to groundbreaking

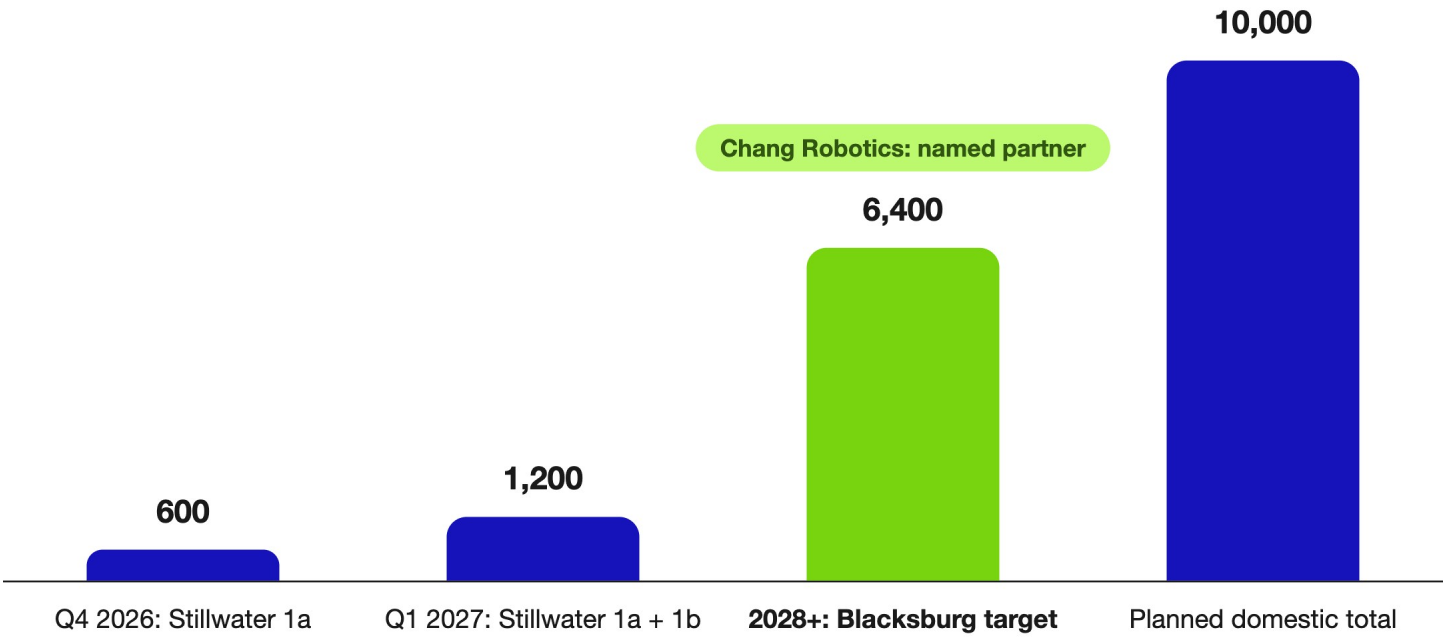


Rare earth magnets combine extreme supply concentration, critical downstream use in motors and defense systems, and a complex industrial chain that runs from raw material through separation and refining, metal and alloy production, magnet fabrication, finishing, and qualification. Speed in one factory does not remove bottlenecks in feedstock, skilled labor, grid service, environmental approvals, testing, or customer certification, which is why every link must be scheduled together.

5.1 Domestic capacity is ramping, in phases

Public filings show that domestic sintered magnet capacity has begun a phased ramp. USA Rare Earth reported commissioning the Phase 1a magnet line at its Stillwater, Oklahoma facility in 2026 and projects an annualized run rate of 600 metric tons by Q4 2026, rising to 1,200 metric tons with Phase 1b by Q1 2027. Its Blacksburg, South Carolina plant targets 6,400 metric tons per year, and together with a planned Stillwater expansion the company expects 10,000 metric tons per year of domestic NdFeB magnet capacity.

Figure 10. Announced US sintered NdFeB magnet capacity milestones (metric tons per year)



Sources: USA Rare Earth Form 10-Q for the quarter ended 31 March 2026; USA Rare Earth press release, 9 September 2026. Company projections, not independent forecasts.

5.2 Blacksburg: from proposal to groundbreaking

On 9 September 2026, USA Rare Earth broke ground on an approximately 800,000-square foot metal and magnet plant on a 124 acre site in Bailey Industrial Park, Cherokee County, South Carolina. The company describes it as an approximately $1.2 billion investment expected to create about 490 manufacturing jobs.

Table 6. Blacksburg at a glance

Announced investment	~$1.2 billion
Facility	~800,000 sq ft on a 124-acre site
Magnet capacity target	6,400 t/yr sintered NdFeB magnets
Metal and alloy target	5,000 t/yr strip-cast metal and alloy
Jobs	~490 manufacturing jobs
Commissioning	Targeted to begin in 2028
Project team	Clark/Frampton JV (design-build); Trammell Crow Company (developer); McMillan Pazdan Smith (architect); Chang Robotics (advanced manufacturing, automation, and robotics partner)

Source: USA Rare Earth press release, 9 September 2026.

Blacksburg is the kind of project Section 1.3 describes. A plant of this size depends on large electrical infrastructure and many automated production cells, the categories with the longest lead times. The interval between groundbreaking in September 2026 and commissioning targeted for 2028 is the window in which that equipment must be specified, ordered, built, and installed. Measured against transformer lead times of up to four years, that schedule leaves little room for a sequential approach.

These public statements establish project participation and ambition. They do not, on their own, document specific purchase orders, release dates, or time savings; any future case study should report schedule gains and early commitment costs together.

6

Limits, Risks, and Guardrails

Key Takeaway:

Parallel path procurement trades schedule risk for design risk, and it works only with strong governance.

The research behind this paper also sets clear limits on its argument. BCG shows that Factory of the Future methods do not close every cost gap, and the advantage is less pronounced for greenfield projects than for upgrades of existing plants. McKinsey stresses that replacing concentrated imports requires systemwide, capital intensive expansion, not incremental additions. And committing to long lead equipment before floorplans are final can lead to change orders, rework, or idle equipment if production requirements shift.

Table 7. Principal risks, early warnings, and controls

Risk	Early warning	Mitigation or stop criterion
Design churn	Frequent load or layout changes after release	Interface freeze and a formal redesign-cost threshold
Supplier nonperformance	Missed submittals or factory milestones	Capacity audit, milestone protections, alternative supply
Utilities and permits	Interconnection or approvals trail equipment	Do not credit finish-date savings that cannot be achieved
Off-site and on-site mismatch	Cells arrive before the enclosure is ready	Integrated delivery, storage, and acceptance plan
Financial overcommitment	Large noncancelable deposits before project sanction	Staged funding and expected-value approval
Ramp or quality delay	Output misses throughput or customer specifications	Operational acceptance and validation in the master schedule

The method is not suited to indiscriminate acceleration. If a risk adjusted critical path analysis cannot show a plausible earlier productive start, deferring irreversible orders can be the better capital decision.

7

Implications for Owners, Investors, and Policymakers

Key Takeaway:

The first critical decisions on a reshoring project are procurement decisions, so make them early and govern them well.



Owners and developers should treat long lead procurement as a day one strategic workstream: identify long lead items during conceptual engineering, reserve transformer and switchgear slots early, and put change control in place before the first purchase order. Leadership should be held accountable for first qualified output, not just mechanical completion.

Investors and lenders should ask whether the investment case models time to cash flow and whether acceleration assumptions survive schedule sensitivities. A plan that waits for design freeze to order transformers carries years of hidden schedule risk; early commitments should be evaluated as capital exposures with contractual downside.

Policymakers should treat speed as seriously as funding. Where program rules allow, they should recognize appropriately governed early equipment commitments as eligible costs, and strengthen domestic supply of transformers and switchgear, workforce development, and grid readiness.

Five questions before the next project approval

1. Which equipment item, not which construction activity, controls the date of first qualified commercial output?
2. What is the latest safe order date for each long lead item, and what engineering information must be stable by then?
3. How much present value is at stake for every quarter of delay, and how much capital is exposed by ordering early?
4. What documented authority, interface baseline, and change control system govern early commitments?
5. Which nonprocurement bottleneck could negate the projected acceleration, and who is accountable for removing it?

Conclusion: Velocity Must Be Engineered

Industrial strategy cannot be reduced to announcing investment, breaking ground, or targeting an opening date. Strategic resilience exists when qualified capacity is operating at the time customers and national priorities need it. Shortening that interval has real economic value, but only when speed is achieved without ungoverned capital and technical exposure.

Parallel path procurement offers a disciplined way to move selected long lead decisions earlier, so suppliers fabricate while design and construction progress. Its value depends on interface maturity, commercial optionality, integrated planning, and the willingness to stop when risk outweighs expected gain.

The competitive advantage is not simply the ability to build a factory. Automation and smart technology make American production productive and profitable enough to compete with China, Vietnam, and other rising manufacturing economies. Speed is what lets manufacturers capture both advantages at once: higher margins from more productive operations, and market momentum from reaching customers first, before competitors can respond and before market conditions change.

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