
Hitachi in North America

Addressable market and right-to-win across twelve industry segments. One moat, pulled by four of the fastest-growing demand curves in the industrial economy.

THE THESIS

One moat, four demand curves

Hitachi's addressable North American opportunity does not spread evenly across the twelve segments in this study. It concentrates, tightly, in a coherent power-and-grid core: Energy, Grid Modernization, and the power slices of Data Centers and AI Infrastructure.

These are not four separate bets. They are four demand drivers pulling on one supply advantage: Hitachi Energy's high-voltage equipment franchise, its global HVDC leadership, and, decisively, the more than **\$1 billion** it is committing to US grid-equipment manufacturing, anchored by a **\$457 million large-power-transformer plant** in South Boston, Virginia, operating in the second half of 2028.¹

In a market where large-power-transformer lead times have stretched to as much as three years, the supplier adding domestic capacity captures share the way few industrial positions allow. That is the right-to-win moat: real, documented, and difficult for a competitor to answer inside the five-year window, because capacity of this kind takes years to build.

Around that core, the picture is honest rather than flattering. Automation is a genuine, credible second position, anchored to a real acquired business rather than to ambition. Mobility and Rail is a credible challenger play, strongest in signaling and digital rail. Everything else is thin, and the discipline of this study is to say so plainly. Naming that thinness is what lets the strong claims stand without qualification.

The power core

Four segments draw on the **same** Hitachi Energy transformer and switchgear capacity. Their obtainable positions are four views of one advantage, sized by four different demand drivers.

Energy — the anchor
Grid Modernization — inside Energy
Data Centers (power) — demand pull
AI Infrastructure (power) — fastest pull

Their SOMs are not additive. One moat, not four bets.

Two facts kept explicit

Hitachi is **exiting automotive components** (Astemo, sold to Honda) and **sold its diagnostic-imaging business to Fujifilm** in 2021. A strategy that overstates the weak segments cannot be trusted on the strong ones.

\$5.5–7.0B ENERGY SOM BY 2031 — LARGEST, HIGHEST-CONFIDENCE POSITION	~\$82B NA ENERGY TAM 2026, READ ON THE SOURCE'S OWN PAGE	3 yrs LARGE-POWER-TRANSFORMER LEAD TIMES — CAPACITY IS SHARE	5 SOURCE PAGES READ ON-PAGE; ALL OTHERS RANGED HONESTLY
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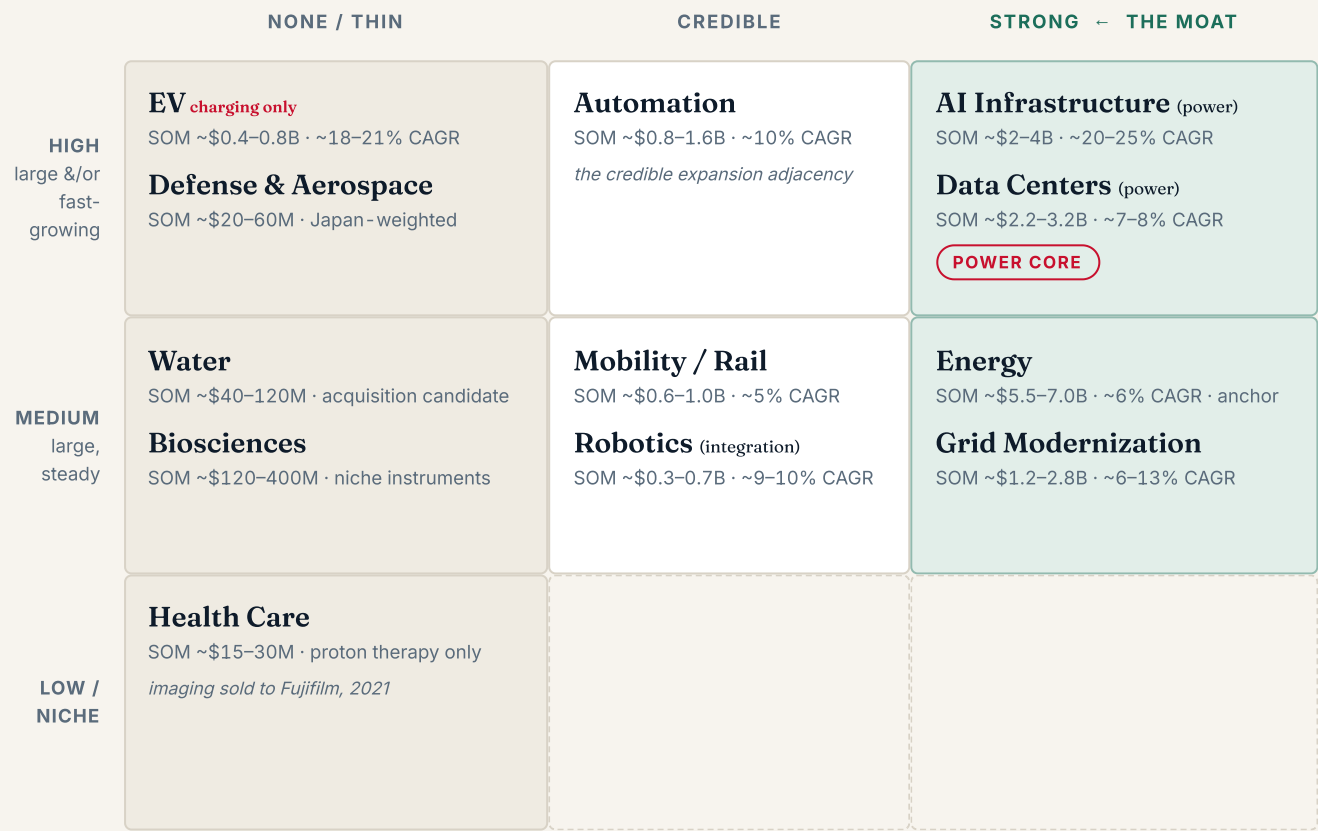
The one-line strategic conclusion. Concentrate North American growth capital and management attention on the power-and-grid core, where the market is large, growing, and defended by a capacity moat; treat Automation as the credible expansion adjacency; and treat the thin segments as monitoring positions, not investment targets, with Water the single named exception where an acquisition could convert a thin position into a real one if the market is judged attractive enough.

¹ Hitachi Energy South Boston, Virginia transformer-plant groundbreaking release, June 29 2026, read on hitachienergy.com. Full sourcing in the methodology appendix.

HERO EXHIBIT 1 · ATTRACTIVENESS × RIGHT-TO-WIN

Where the opportunity concentrates

Every segment placed on two axes: market attractiveness (size and growth, carried from the sizing) against Hitachi's right-to-win (the verdict from the capability read). The four power-core segments cluster in the strong column and are bracketed as one moat, not four bets.



Read the placement, not the market size

EV and Defense are high-attractiveness *markets*, but Hitachi's obtainable position sits in thin or none. They are placed by right-to-win, not by market size, because the market is not the opportunity if Hitachi cannot serve it.

The bracket is the argument

The four power-core cells draw on **one** transformer and HVDC advantage. Their obtainable positions are **not additive** — they are four demand drivers on one moat. The strategic point is concentration, not a sum.

Attractiveness combines market size and growth (carried from the sizing). Right-to-win is the capability-read verdict. Power-core SOMs (Energy, Grid Modernization, Data Centers power, AI Infrastructure power) share the same Hitachi Energy capacity and must never be summed.

HERO EXHIBIT 2 · SEGMENT SCORECARD

Twelve segments at a glance

The reference exhibit. Every segment with its obtainable position by 2031, its market growth rate, and the right-to-win verdict, color-graded. Ranges are carried as ranges: where the analysis does not support a tighter band, tightening it would be fabrication.

RANK	SEGMENT	TAM 2026	TAM 2031	TAM CAGR	SOM 2031 (Hitachi-specific)	RIGHT-TO-WIN
1	Energy	~\$82B	~\$110B	~6.0%	~\$5.5–7.0B	Strong
2	Grid Modernization	~\$14–19B	~\$24–34B	~6–13%	~\$1.2–2.8B	Strong
3	Data Centers (power)	~\$22–28B	~\$32–40B	~7–8%	~\$2.2–3.2B	Strong on power
4	AI Infrastructure (power)	~\$18–26B	~\$45–65B	~20–25%	~\$2–4B	Strong on power
5	Automation	~\$60.6B	~\$97.3B	9.95%	~\$0.8–1.6B	Credible
6	Mobility / Rail	~\$14–18B	~\$18–23B	~5%	~\$0.6–1.0B	Credible
7	Robotics (integration)	~\$12–18B	~\$19–28B	~9–10%	~\$0.3–0.7B	Credible / none on hardware
8	Water	~\$18–24B	~\$24–32B	~6%	~\$40–120M	Thin — acq. candidate
9	EV (charging-grid)	~\$40–48B	~\$90–115B	~18–21%	~\$0.4–0.8B	Thin / declining components
10	Biosciences	~\$28–32B	~\$39–43B	~7%	~\$120–400M	Thin
11	Health Care	~\$0.7–0.9B	~\$1.0–1.2B	~6–7%	~\$15–30M	Thin
12	Defense & Aerospace	~\$14–20B	~\$22–32B	~9–11%	~\$20–60M	Thin-to-none (NA)

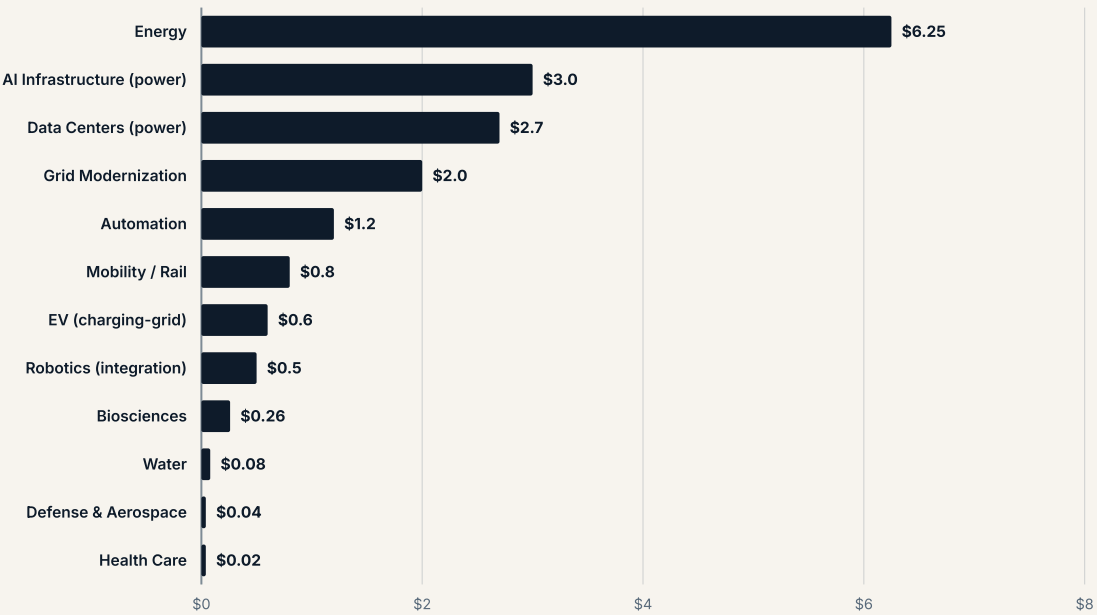
The column does not sum. Grid Modernization sits inside Energy; the data-center and AI-infrastructure power slices are the demand-driven portions of the same supply; EV charging-grid overlaps Energy and Grid; Automation and Robotics share JR Automation. Any cross-segment total must apply the de-overlap rules or it is a fiction.

STRONG CREDIBLE THIN NONE

THE OBTAINABLE POSITION, SIZED

Where the money actually is

Obtainable position by 2031 — SOM midpoint, Hitachi-specific (USD B)



Obtainable position by 2031 (SOM), Hitachi-specific derivation, in USD billions. Bars use range midpoints; the exact bands are carried in the scorecard and in each segment spread. The four power-core segments (Energy, Grid Modernization, Data Centers power, AI Infrastructure power) draw on one transformer and HVDC advantage and are not additive.

The gap is the story

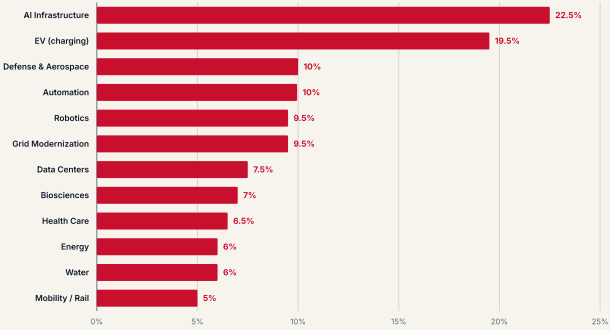
Energy alone carries a larger obtainable position than the other eleven segments combined would if they could be summed. The scale gap between the power core and the long tail is the concentration argument in one picture.

Growth compounds where capacity holds

The fast-growing pulls sit on the same supply advantage. Their obtainable positions grow faster than their markets as committed capacity comes online mid-window.

WHERE THE GROWTH IS — TAM CAGR

Market growth to 2031 — TAM CAGR (range midpoint)



TAM CAGR by segment, midpoint of the stated range. The fastest markets — AI Infrastructure and EV charging — are pulled onto the same power supply as the highest-confidence anchor, Energy.

THE CONCENTRATION ARGUMENT, ORDERED

Where to push

The top four are the power core, ranked by a blend of obtainable size, growth, and confidence. The fifth is the credible expansion adjacency. Everything else is a monitor-or-decide position.

1 Energy ~\$5.5–7.0B
~6% CAGR

The anchor. Largest obtainable position, highest confidence, organic capacity moat. Push hardest.

2 AI Infrastructure (power) ~\$2–4B
~20–25% CAGR

The fastest-growing pull on the moat; largest upside if capacity holds. Capacity allocation and hyperscaler partnership.

3 Data Centers (power) ~\$2.2–3.2B
~7–8% CAGR

The near-term, high-urgency pull. A dedicated supply-certainty sales motion.

4 Grid Modernization ~\$1.2–2.8B
~6–13% CAGR

The IT-plus-OT-plus-products thesis in its purest form; the category-leading vendor position. The software attach.

5 Automation ~\$0.8–1.6B
~10% CAGR

The credible expansion adjacency; a real acquired platform, and the one non-Water place a scale acquisition is on the table.

Everything else — monitor or decide

- Water is the single named decide: the acquisition question, put on the table because the market is attractive and only an acquisition closes the North American gap. The rest are monitored and served opportunistically, not funded as growth bets.

Why these four rank together

Ranks one through four are the power core: one transformer and HVDC advantage pulled by four demand curves. They are ranked among themselves by obtainable size, growth, and confidence — but they compete for the same capacity, so the ranking is a sequencing of one platform's output, not four independent bets.

Automation earns rank five on its own merits

A real acquired North American business in a large market growing near ten percent. It does not draw on the transformer moat, which is exactly why it is the credible *expansion* adjacency rather than a fifth view of the core.

The strategic sentence to close on. Hitachi's North American opportunity is not twelve markets. It is one moat, pulled by four of the fastest-growing demand curves in the industrial economy, with one credible adjacency beside it and one acquisition question worth asking. Concentrate there.

PART TWO

The twelve segments

Each segment: what Hitachi actually does, named business units and the real competitor set, the sized position carried from the analysis, and the right-to-win verdict a partner would defend. Where the sizing states a range, the spread carries the range.

4	3	5	2
STRONG — THE POWER CORE	CREDIBLE POSITIONS	THIN OR NONE IN NA	HONESTY POINTS KEPT EXPLICIT

SEGMENT 01

RIGHT-TO-WIN · CREDIBLE

Mobility & Rail Infrastructure

WHAT HITACHI DOES HERE

Hitachi Rail (Mobility Sector, Railway Systems BU) bids rolling stock, signaling and train control, turnkey rail systems, traffic management, digital rail asset management, and multi-year lifecycle maintenance. It is a genuine top-tier global rail business, strongest in Japan, the UK, and Italy, and is named among train-control and management-system vendors — a real product position, not a claimed one.

THE VERDICT

Hitachi Rail has proven product and a service-attach model, but its North American installed base and delivery footprint are materially thinner than Alstom's and Siemens Mobility's, and transit fleet tenders are won on incumbency. The right-to-win is real and specific in **signaling and digital rail**: North America carries a mandated positive-train-control base of 57,000-plus route-miles and a CBTC modernization pipeline. It is thinner in rolling stock. This is a place to win projects, not to reshape the market.

Competitor set

Alstom and Siemens Mobility — the two full-line incumbents with deeper NA footprints.
Stadler — rolling stock.
Wabtec — freight, outside Hitachi's SAM.

Where to win

Signaling and digital rail — the mandated PTC base and CBTC pipeline are the firmest Hitachi-relevant demand.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
TAM ROLLING STOCK + SIGNALING + SYSTEMS + SERVICES	~\$14–18B	~\$18–23B	~5%	Mordor railway-system & rail-infra NA; M&M NA digital rail \$2.71–4.26B
SAM HITACHI-SPECIFIC	~\$6–8B	~\$8–11B	~5–6%	rolling stock + signaling + maintenance Hitachi bids (~40–45% of TAM)
SOM HITACHI-SPECIFIC	~\$0.3–0.6B	~\$0.6–1.0B	~13–15%	5–9% of SAM, credible band, signaling-weighted

Sources: Mordor railway-system [R1], rail infrastructure [R2]; MarketsandMarkets NA digital railway [R3]. SAM and SOM are Hitachi-specific analytical derivations. Confidence: medium — TAM is a ranged build across three overlapping definitions; the NA digital-rail slice is the firmest anchor.

A challenger play. Win projects in signaling and digital rail; do not fund rolling stock as a growth bet.

Play posture — monitor and bid selectively. Pursue signaling and digital-rail tenders where the right-to-win is real. Credible, but not a priority for growth capital: the North American footprint is thinner than the incumbents', and fleet tenders turn on incumbency.

SEGMENT 02

Data Centers

WHAT HITACHI DOES HERE

Three things of very different strength. **Hitachi Energy** supplies the critical facility power — transformers, switchgear, grid connection. **Hitachi Vantara** supplies data storage and data-infrastructure hardware. **GlobalLogic** and **Lumada** supply digital engineering for operators. The defensible claim is narrow and deliberately so: Hitachi does not build data centers and does not make servers, GPUs, cooling, or chips. It supplies the electricity path into the building, and that path is the binding constraint on the whole market.

THE VERDICT

Data-center growth is throttled by grid power and transformers; the research house's own restraint language names 18-to-24-month transformer lead times as the market's number-one constraint. Hitachi Energy owns constrained North American transformer capacity and is adding more. That is a documented advantage on the slice that matters most. The storage slice is real but contested and thin against the hyperscalers' own stacks. Sell the power path; do not oversell the box.

RIGHT-TO-WIN · STRONG ON POWER

Competitor set

Power: Siemens Energy, GE Vernova, Schneider Electric, Eaton, Vertiv.
Storage: Dell, NetApp, Pure Storage, hyperscaler in-house stacks.

Power core

This power slice draws on the same Hitachi Energy capacity as Energy, Grid Mod, and AI Infra. Attributed to the data-center demand driver — not additive.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
Full NA facility market CONTEXT, NOT TAM	~\$132–135B	~\$182–186B	~6.6%	Mordor US \$122.08 – 168.34B (read on-page) + Canada
TAM POWER + STORAGE + DIGITAL-ENG SLICES	~\$22–28B	~\$32–40B	~7–8%	~17–21% of facility market (analytical build)
SAM HITACHI-SPECIFIC	~\$8–11B	~\$13–17B	~9%	power + Vantara + GlobalLogic slices
SOM HITACHI-SPECIFIC	~\$0.9–1.4B	~\$2.2–3.2B	~18–20%	strong on power, credible on eng, thin on storage

Sources: Mordor US Data Center [D1] (read on the source's own page); Arizton NA construction [D2]. Facility TAM read on-page; addressable slices are a labeled analytical build; power-slice SOM anchored to the verified \$1B+ transformer build. Confidence: medium-high.

The transformer is the pacing constraint on the whole market. Hitachi is one of a handful of suppliers adding domestic capacity.

Play posture — organic build, prioritize allocation. This is an allocation decision more than an investment one. Build a dedicated data-center and hyperscale power sales motion that sells supply certainty and speed, and consciously allocate scarce capacity toward these higher-urgency, higher-value orders. Do not chase the storage slice as a growth bet.

SEGMENT 03 · THE ANCHOR OF THE WHOLE THESIS

RIGHT-TO-WIN · STRONG

Energy — Grid & Power Systems

WHAT HITACHI DOES HERE

Hitachi Energy (Energy Sector, Power Grids BU), the former ABB Power Grids business acquired in 2020, addresses the transmission-and-distribution core: transformers, switchgear, substations, HVDC, grid automation, power quality, and transformer service, plus the Nuclear Energy BU where North America is relevant. It is a global leader in HVDC and high-voltage equipment. This is the anchor of the entire North American thesis.

THE VERDICT — HIGHEST CONFIDENCE IN THE STUDY

The best-documented right-to-win in the engagement. Global HVDC leadership, a deep North American installed base, and more than **\$1 billion** in committed US transformer manufacturing — the \$457M South Boston, Virginia plant, component expansion across Virginia, Missouri, and Mississippi, and the Conduct insulation acquisition in Ontario. In a supply-constrained market with multi-year lead times, the supplier adding domestic capacity captures disproportionate share, and the obtainable position grows faster than the market as that capacity comes online mid-window. Everything else in the study is measured against this.

Competitor set

Siemens Energy, GE Vernova, Schneider Electric, Eaton, Prysmian (cables).

The capacity moat

\$1B+ committed US grid-equipment build.
\$457M South Boston, VA transformer plant — the nation's largest such facility, operating H2 2028.
~825 new jobs on the campus.
Read on Hitachi Energy's own page.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA T&D + HVDC + GRID AUTOMATION + SERVICES	~\$82B	~\$110B	~6.0%	Straits (read on-page): NA \$77.54B 2025, NA CAGR 5.98%; TechSci corroborates
SAM HITACHI-SPECIFIC	~\$26–29B	~\$36–40B	~6%	~35% of TAM — the addressable T&D/HVDC/automation core
SOM HITACHI-SPECIFIC	~\$3.0–3.5B	~\$5.5–7.0B	~13–15%	~12–18% of SAM, strong posture — the largest obtainable position in the study

Sources: Straits Research T&D [T1] — the NA figure (\$77.54B 2025, NA CAGR 5.98%) read on the source's own page, the firmest TAM anchor in the study; TechSci [T2] corroborates (global 6.11%, NA largest). SOM anchored to a capital commitment verified on Hitachi Energy's own page. Confidence: high.

Play posture — organic build, defend and extend the moat. The advantage is capacity Hitachi is itself creating. Finish and extend the committed build; bolt on supply-chain inputs (insulation, bushings, components) where a lead-time bottleneck can be bought out — the Conduct acquisition is the right kind of inorganic move: small, vertical, securing an input to the core. Do not dilute focus with a large horizontal acquisition. The organic moat is the asset.

SEGMENT 04

RIGHT-TO-WIN · THIN (NICHE)

Biosciences

WHAT HITACHI DOES HERE

Hitachi High-Tech (Connective Industries) supplies analytical and bioscience instruments; Hitachi retains in-vitro diagnostics and regenerative-medicine lines after the 2021 Fujifilm imaging divestiture. The org flag here is resolved and matters: Hitachi High-Tech is a wholly owned, consolidated subsidiary, so its instrument revenue is clean Hitachi revenue with no consolidation discount. (The KKR take-private that circulated in the market was Hitachi Transport System, now LOGISTEED — a different company.)

THE VERDICT

Hitachi has genuine instrument engineering in specific categories — electron microscopy, some chromatography and mass-spec for IVD, atomic force microscopy — but it is not a Thermo Fisher, Danaher, or Agilent. The SAM is a small fraction of the category. The right-to-win is real only where Hitachi already has a differentiated instrument line, and even there the North American base is small. Momentum exists (record diagnostic-instrument shipments in the FY2025 materials), but off a small base.

Competitor set

Thermo Fisher, Danaher, Agilent, Bruker, Shimadzu, Waters.

Where the niche is real

Electron microscopy, AFM, and IVD platforms Hitachi already differentiates — defend these, do not chase the broad category.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA LIFE-SCIENCE / ANALYTICAL INSTRUMENTS + IVD PLATFORMS SLICE	~\$28–32B	~\$39–43B	~7%	Mordor life-sci instr (NA largest); Fortune US ~\$25B; M&M US IVD \$40.15 → 57.18B
SAM HITACHI-SPECIFIC	~\$2–4B	~\$3–5B	~7%	High-Tech instruments + IVD + regen-med niches (~8–12% of TAM)
SOM HITACHI-SPECIFIC	~\$70–250M	~\$120–400M	~10%	3–8% of a narrow SAM, thin posture

Sources: Mordor life-science & chemical instrumentation [B1]; Fortune Business Insights life-science instrumentation [B2]; MarketsandMarkets US IVD [B3]. Consolidation flag resolved (SAM is clean Hitachi); narrow-niche SAM is a labeled estimate; TAM anchors NA-scoped and corroborated across three houses. Confidence: medium.

A niche to defend, not a category to lead. Genuine engineering, a small North American base.

Play posture — monitor. Defend the niche instrument lines where Hitachi already differentiates. Not a category Hitachi will lead in North America, and not a growth bet.

SEGMENT 05

RIGHT-TO-WIN · THIN

Health Care

THE LOAD-BEARING HONESTY POINT

Hitachi sold its diagnostic-imaging business to Fujifilm in 2021.

CT, MRI, ultrasound, X-ray — all sold. Hitachi is **not** a broad medical-imaging or hospital-equipment company in North America. This is the single place an outside analyst most often overstates Hitachi's position. Read no imaging revenue into this segment.

WHAT REMAINS, AND IS NA-ADDRESSABLE

Narrow: **particle and proton-therapy** cancer-treatment systems (Hitachi is a named, real vendor; the North American reference is the MD Anderson proton program), in-vitro diagnostics, medical and nursing IT, and regenerative medicine. The corporate hospital group is Japan-only and contributes zero North American SOM. Health IT via GlobalLogic and Lumada is credible as a services layer, not as equipment.

THE VERDICT

Proton therapy is real but small, capital-heavy, and lumpy, with only a handful of North American installations a year. This is a niche to serve, not a market to build a strategy on.

Competitor set

Proton therapy: Varian (Siemens Healthineers), IBA (signed Duke, June 2026), Mevion.
Broad equipment (not contested): GE HealthCare, Philips, Siemens Healthineers, and Fujifilm — which now owns Hitachi's former imaging line.

SIZED POSITION · NORTH AMERICA PROTON / PARTICLE-THERAPY SYSTEMS, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA PROTON / PARTICLE-THERAPY SYSTEMS	~\$0.7–0.9B	~\$1.0–1.2B	~6–7%	Global proton \$1.00 → 1.32B (Hitachi named); particle \$1.88 → 2.65B; NA ~45.5%
SAM HITACHI-SPECIFIC	~\$0.4–0.6B	~\$0.6–0.8B	~6–7%	proton systems + IVD + health-IT engineering
SOM HITACHI-SPECIFIC	<\$20M	~\$15–30M	—	<3% of SAM, thin posture

Sources: Knowledge Sourcing proton therapy [H1] (Hitachi named vendor); Mordor particle therapy [H2]; Mordor proton-therapy systems [H3]; Coherent NA share ~45.5% [H4]. A small, well-bounded niche; NA share is a search lead, so the TAM band is stated wide. The Fujifilm imaging divestiture is the high-confidence strategic point. Confidence: medium.

A niche to serve, not a market to build a strategy on. The imaging revenue an outsider would credit is Fujifilm's now.

Play posture — monitor. Serve the proton-therapy niche opportunistically. Imaging is sold; there is no broad healthcare play. Health IT via GlobalLogic is captured in the digital-engineering attach where it serves the customer's end market, not sized here as equipment.

SEGMENT 06

COMPONENTS EXITING · CHARGING-GRID CREDIBLE

Electric Vehicles

THE SECOND LOAD-BEARING HONESTY POINT

Hitachi is exiting automotive components. Astemo is being divested to Honda.

On Hitachi's own December 2025 release: the stake moves 40% → 19%, Astemo becomes a Honda-consolidated subsidiary, and it “will no longer be an equity-method associate of Hitachi.” Close expected by the fiscal year ending March 31, 2027 (India cleared it June 2026). **After close, Astemo is not Hitachi's business.** Hitachi is exiting components, not building them.

THE CREDIBLE FORWARD POSITION

Not the vehicle components and not the charger hardware, but the **grid and charging-infrastructure power** side via **Hitachi Energy** — connecting fast-charging corridors to the grid, and power quality. This is roughly the 10–13% of the charging-infrastructure market that is grid and electrical rather than the charger hardware and networks owned by ChargePoint, ABB, and others.

Competitor set

Components (the exiting side): Bosch, Denso, Continental, ZF, BorgWarner.
Charging infrastructure: ChargePoint, ABB, Siemens, Tesla.

THE VERDICT

An EV-components right-to-win that looks real on paper is being sold. The honest forward read routes the EV opportunity to Hitachi Energy's grid connection for charging, which overlaps Grid Modernization and Energy and is attributed to EV here so it is not double-counted. The Astemo exit must be stated wherever this segment is quoted.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA EV CHARGING INFRASTRUCTURE	~\$40–48B	~\$90–115B	~18–21%	Mordor US \$43.66 → 112.55B; M&M US \$38.62 → 87.24B (houses diverge)
TAM EV COMPONENTS (ASTEMO) — EXITING	—	—	—	Not Hitachi SAM after divestiture; sized at ~0
SAM CHARGING-GRID SLICE ONLY	~\$4–6B	~\$9–14B	~18%	grid connection + power quality for charging (Hitachi Energy)
SOM HITACHI-SPECIFIC	~\$0.1–0.3B	~\$0.4–0.8B	~20%	3–7% of charging-grid SAM (credible); components ~0

Sources: Mordor US EV charging [E1]; MarketsandMarkets US EVSE [E2]. The charging-grid slice overlaps Grid / Energy — attributed to EV here, noted so it is not double-counted. Confidence: medium (component-exit read is high-confidence, verified on Hitachi's page). **Play posture — monitor;** the only forward exposure is the charging-grid slice, captured within Energy and Grid.

SEGMENT 07 · THE STRONGEST POSITION OUTSIDE THE POWER CORE

RIGHT-TO-WIN · CREDIBLE

Automation

WHAT HITACHI DOES HERE

JR Automation (a Hitachi Group company since December 2019; Holland, Michigan; roughly 2,000 employees, 20-plus facilities, historically about \$600M in sales) provides custom robotic systems integration across automotive, aerospace, medical device, and logistics. Alongside it sit the Industrial Solutions BU (Automation Division, Industrial OT Solutions) and the Industrial AI BU and Lumada industrial software. The right-to-win is in integration and industrial software and OT, not in automation hardware, which Hitachi does not make at OEM scale.

THE VERDICT

A real acquired North American business with genuine scale, not a claim. The market is large and growing near 10%. The right-to-win is defensible in integration and the industrial-software and OT layer. It is the natural expansion adjacency once the power core is being pushed hardest.

Competitor set

Integration: ATS, Rockwell Automation, Emerson, Honeywell.
Hardware (not Hitachi's game): Rockwell, Siemens, Mitsubishi Electric.

The anchor asset

JR Automation — a real, named, acquired NA integrator, ~2,000 employees. Scale, not ambition.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA FACTORY AUTOMATION + INDUSTRIAL CONTROLS + OT	~\$60.6B	~\$97.3B	9.95%	Mordor NA Factory Automation \$60.55 → 97.27B — a clean NA figure
SAM HITACHI-SPECIFIC	~\$9–13B	~\$15–20B	~10%	integration + industrial software / OT slice (~15–20% of TAM)
SOM HITACHI-SPECIFIC	~\$0.4–0.9B	~\$0.8–1.6B	~13%	4–8% of SAM, credible band, anchored to JR Automation's real NA scale

Sources: Mordor NA Factory Automation & Industrial Controls [A1]; Mordor industrial automation [A2]. Clean NA TAM figure; SAM/SOM anchored to a real named NA business (JR Automation). Confidence: medium-high.

Play posture — organic build; a scale acquisition is a legitimate option. Build organically on JR Automation as the platform, and evaluate a bolt-on or scale acquisition of a complementary NA integrator or an industrial-OT-software specialist where it deepens the software attach. This is the one segment outside Water where an acquisition recommendation is genuinely on the table, and it is on the table because the market and the right-to-win both earn it.

SEGMENT 08

Robotics

WHAT HITACHI DOES HERE

The robotics play is **JR Automation** again — robotic systems integration and deployment — plus adjacent industrial hardware (Hitachi Industrial Products, Industrial Equipment Systems) and the forward-looking “Physical AI” / Lumada 3.0 direction. Hitachi does not manufacture industrial robot arms at the scale of the robot OEMs, so the hardware slice is addressable market but not Hitachi's serviceable market.

THE VERDICT

Do not credit Hitachi with robot-arm market share. The defensible read is that Hitachi's robotics right-to-win is as an integrator and, prospectively, a physical-AI software layer. The “Physical AI” ambition is real strategy but converts to obtainable revenue only where it books work — forward positioning, not current revenue. This shares JR Automation's revenue with Automation and is split by work type, not double-counted.

INTEGRATION CREDIBLE · HARDWARE NONE

Competitor set

Hardware (no Hitachi position): FANUC, ABB, KUKA, Yaskawa, Universal Robots.
Integration: the same field as Automation.

De-overlap

Robotics SAM is the integration slice; Automation SAM is the broader OT-plus-software-plus-integration. JR Automation revenue is split by work type, never counted twice.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA ROBOT HARDWARE — CONTEXT, NOT SAM	~\$4–6B	~\$7–10B	~10%	NA heavy industrial robotics \$2.12 → 4.84B + broader
TAM NA ROBOTIC INTEGRATION / DEPLOYMENT	~\$12–18B	~\$19–28B	~9–10%	integration slice of NA automation
SAM INTEGRATION ONLY	~\$3–5B	~\$5–8B	~10%	JR Automation deployment slice
SOM HITACHI-SPECIFIC	~\$0.15–0.4B	~\$0.3–0.7B	~13%	4–8% of integration SAM (credible); hardware SOM = 0

Sources: IntelMarketResearch NA heavy industrial robotics [RB1]; Roots Analysis global industrial robotics. The split is well-defined; the integration TAM overlaps automation and is ranged to avoid double-counting JR Automation. Confidence: medium.

The right-to-win is the integrator's, not the robot-maker's. Physical AI converts to revenue only where it books work.

Play posture — no separate play. Robotics lives inside the Automation recommendation as the integration slice; there is no robot-hardware ambition. The Physical AI direction is forward positioning to watch, not a sized growth bet.

SEGMENT 09 · THE FASTEST PULL ON THE MOAT

AI Infrastructure

WHAT HITACHI DOES HERE

Two addressable parts, deliberately excluding the chips and cloud compute Hitachi does not sell: the **physical** infrastructure — the power, grid, and data-center electrical systems feeding AI compute (Hitachi Energy) — and the **AI engineering and software** layer (GlobalLogic, Lumada, the Industrial AI BU). The honest framing: Hitachi's AI right-to-win is the electricity and the engineering around AI, not the AI chips.

THE VERDICT

On power, this is the same transformer-capacity advantage as Energy, pulled by the fastest-growing demand curve in the study. On engineering, GlobalLogic and Lumada are a credible services challenger against Accenture, Infosys, Cognizant, and EPAM in a market compounding faster than an organic build can. The power slice is the AI-driven portion of data-center power, not a separate market, so its obtainable position is not additive to Data Centers.

STRONG ON POWER · CREDIBLE ENG

Competitor set

Power: Siemens Energy, GE Vernova, Schneider, Eaton, Vertiv.
AI engineering: Accenture, Infosys, Cognizant, EPAM, hyperscalers.

One flagged figure

GlobalLogic's ~73% YoY AI-adjacent growth is **Hitachi-reported**, carried as such and not leaned on. The recommendation stands on the market's growth rate and Hitachi's challenger position.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
NA AI-infra overall INCL. COMPUTE — NOT TAM	~\$55B	~\$150B+	~24%	SNS global \$139.25B, NA 39.56%; US \$37.67B (2025)
TAM NA POWER-FOR-AI + AI-ENGINEERING SLICES	~\$18–26B	~\$45–65B	~20–25%	McKinsey energizers 25% of buildout + eng slice (analytical build)
SAM HITACHI-SPECIFIC	~\$5–9B	~\$14–24B	~22%	Hitachi Energy power-for-AI + GlobalLogic / Lumada AI eng
SOM HITACHI-SPECIFIC	~\$0.5–1.0B	~\$2–4B	~25%	strong on power slice, credible on engineering

Sources: SNS Insider AI infrastructure [AI1]; Technavio [AI2]; McKinsey energizers via industry reporting + ABI capacity [AI3]. Power-slice SOM is high-confidence (verified transformer build); the overall TAM is a fast-moving analytical build stated as a wide range. Confidence: medium.

Play posture — organic build on power; partnership on engineering. Allocate constrained capacity toward AI data-center demand, which commands the most urgency and price. On engineering, partner with the hyperscalers and AI-platform providers Hitachi Energy already powers, attaching GlobalLogic and Lumada engagements to the power relationships Hitachi is winning anyway. A large AI-services acquisition is not recommended — expensive, integration-heavy, and outside the power core that is the real advantage.

SEGMENT 10 · THE THESIS IN ITS PUREST FORM

RIGHT-TO-WIN · STRONG

Grid Modernization

WHAT HITACHI DOES HERE

Hitachi Energy's grid-automation, grid-software, HVDC, and power-quality lines plus Lumada grid analytics — the digital and automation subset of the broader Energy category. This is the clearest single expression of Hitachi's IT-plus-OT-plus-products thesis, where the hardware installed base and the digital layer combine on one customer.

THE VERDICT

Grid modernization is where the moat and the software layer meet on the same customer, and Hitachi Energy leads the named vendor field — the number-one-profiled company in the category on the source read on-page. This is a subset of Energy, included within it and not additive; a combined energy view must not sum the two. The North American growth rate is a genuine inter-house disagreement, carried as a ~6–13% range rather than resolved to a single stamped figure.

Competitor set

Siemens (Grid Software & Grid Technologies), GE Vernova (GridOS), Schneider, ABB; utility-software specialists Itron, Landis+Gyr, Oracle Utilities.

Category position

#1-profiled vendor in the grid-modernization category (read on the source's own page).

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA GRID MODERNIZATION / SMART GRID	~\$14–19B	~\$24–34B	~6–13%	RM/TBRC global \$45.23 → 81.97B NA -largest (read on-page); NA CAGR is an inter-house range
SAM HITACHI-SPECIFIC	~\$4–7B	~\$8–13B	~12%	grid automation + HVDC + power quality + Lumada grid (~30–40% of TAM)
SOM HITACHI-SPECIFIC	~\$0.5–1.1B	~\$1.2–2.8B	~18%	12–20% of SAM, strong posture

Sources: Research&Markets / TBRC grid modernization [G1] — global TAM and Hitachi's #1 position read on-page; Fortune smart grid NA [G2]; Mordor / GM Insights NA CAGR range [G3] (Mordor 5.92%, GM Insights 8.3%, others higher — the honest range is the truth). SOM anchored to the verified transformer / grid build. Confidence: medium-high.

Play posture — organic build, lead with the IT-plus-OT-plus-products bundle. Lead every grid-hardware sale with the Lumada grid-analytics attach, converting a transactional equipment relationship into a recurring software-and-services one. Because the growth rate is uncertain, scale the investment with booked demand rather than commit ahead of it the way Energy capacity does. Organic; no acquisition needed to compete here.

SEGMENT 11 · THE SINGLE NAMED ACQUISITION CANDIDATE

THIN (NA) · ACQUISITION CANDIDATE

Water

WHAT HITACHI DOES HERE

Hitachi's **Water Solutions Division** and **Environment Solutions Division** (Connective Industries, Industrial Solutions BU) plus **Lumada** water analytics. The org flag is resolved: this is a real business unit (about ¥205.5B global revenue in FY2025), but its footprint is heavily Japan-and-Asia-weighted — the flagship references are Miyagi Prefecture municipal water concessions, not North American contracts. No specific North American water-contract base surfaced in the research.

THE VERDICT — THIN, AND THE ONE LIVE INORGANIC OPTION

Hitachi has a real water business and real water technology, but a limited North American position. This is the single thin-side segment where an acquisition could convert a thin position into a credible one: the market is large and steady, and Hitachi's product is genuine. Organic entry from a standing start would be slow and expensive against Veolia, Xylem, Ecolab, and SUEZ.

Competitor set

Veolia, Xylem (now including Evoqua), Ecolab, SUEZ.

The decision

Not “acquire” — “**decide.**” An NA water-technology or utility-OT acquisition would give Hitachi an installed base to sell its technology and Lumada water analytics into. The client asked for acquisition recommendations where a market is interesting enough; Water is precisely that case.

SIZED POSITION · NORTH AMERICA, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA WATER / WASTEWATER TREATMENT TECHNOLOGY + UTILITY OT	~\$18–24B	~\$24–32B	~6%	Mordor global \$69.08 → 92.58B, NA ~28–32%
SAM HITACHI-SPECIFIC	~\$1–3B	~\$1.5–4B	~6%	Water Solutions + Environment + Lumada water (thin NA)
SOM HITACHI-SPECIFIC	<\$50M	~\$40–120M	—	<3% of SAM, thin posture; acquisition candidate

Sources: Mordor water & wastewater treatment technologies [W1]; TechSci US water treatment chemicals [W2]. TAM anchored to a global house with NA-share derivation; the thin-NA SOM is confirmed by Hitachi's own Japan-weighted references. Confidence: medium.

Play posture — acquisition-or-monitor decision, put to the client. Without a North American contract base, the obtainable market stays under 3% of SAM and only an acquisition closes that gap inside five years. If the client's appetite for a new North American platform is low, Water reverts to a monitoring position and the capital goes to the power core. The recommendation is to decide with eyes open.

SEGMENT 12

THIN-TO-NONE (NA) · JAPAN-WEIGHTED

Defense & Aerospace

THE LOAD-BEARING FRAMING

Hitachi's real defense momentum is Japan-domestic — and outside this study's geography.

Hitachi is not a prime defense contractor in North America. Its defense growth is real but Japan-centric. In North America, national-security procurement rules, domestic-prime preference, and foreign-ownership constraints on a Japanese-parent group make the obtainable market small. Do not read Hitachi's defense growth as a North American opportunity.

THE NARROW NA ANGLE

Aerospace **manufacturing integration** (JR Automation serves aerospace customers) and analytical **instrumentation** (Hitachi High-Tech, for defense and aerospace supply-chain testing) — not defense systems, platforms, weapons, or prime contracts. Hitachi holds no North American defense-prime position.

THE VERDICT

Thin-to-none in North America. Defense procurement is nationally restricted and favors domestic primes and cleared suppliers. The Japan-versus-North-America split is the load-bearing point.

Competitor set

Primes (not contested): Lockheed Martin, RTX, Northrop Grumman, Boeing, General Dynamics, L3Harris.

Digital / IT: Leidos, Booz Allen, Palantir.

SIZED POSITION · NORTH AMERICA NARROW ADDRESSABLE SLICES, USD

MEASURE	2026	2031	CAGR	BASIS
TAM NA DEFENSE DIGITAL / CYBER / AI + INSTRUMENTATION + AERO INTEGRATION	~\$14–20B	~\$22–32B	~9–11%	US defense cyber \$8.72 → 10.42B; US AI-in-defense \$4.03 → 10.95B
SAM HITACHI-SPECIFIC	~\$0.3–0.8B	~\$0.5–1.2B	~10%	narrow: aero integration + instruments; token NA defense-digital
SOM HITACHI-SPECIFIC	<\$30M	~\$20–60M	—	<3% of SAM; most growth is Japan-domestic, outside NA scope

Sources: MarketsandMarkets US defense cybersecurity [DF1]; Knowledge Sourcing US AI-in-defense [DF2]. TAM anchors are real NA figures, but Hitachi's NA-addressable slice is small and partly unconfirmed. Confidence: medium (framing) / low (NA SAM magnitude). **Play posture — monitor NA only** through the aerospace-integration and instrumentation angles. Not a North American priority.

PART THREE

How Hitachi should play

Recommendations only for the segments that earn them: large enough, growing fast enough, and backed by a real right-to-win. The thin and none segments get a monitoring verdict, with Water the single named exception because it carries a live acquisition question.

The organizing logic: treat the power core not as four separate initiatives but as **one capacity-and-capability platform serving four demand markets**. The scarce resource is transformer and high-voltage capacity. Point it at the highest-value demand, and use the Lumada and grid-software layer to attach margin and lock in the relationship.

THE POSTURE FOR EACH ATTRACTIVE SEGMENT

Organic, partnership, or acquisition

SEGMENT	POSTURE	THE MOVE, AND WHY THE NUMBERS SUPPORT IT
Energy	ORGANIC BUILD + selective vertical bolt-on	Finish and extend the committed \$1B+ build; bolt on supply-chain inputs (insulation, bushings) where a lead-time bottleneck can be bought out — Conduct is the model. In a market with three-year lead times, capacity is share. Do not dilute with a large horizontal acquisition.
Grid Modernization	ORGANIC BUILD software-led attach	Lead every grid-hardware sale with the Lumada grid-analytics attach, converting transactional equipment into recurring software-and-services. Because the growth rate is uncertain (~6–13%), scale with booked demand rather than commit ahead of it.
Data Centers (power)	ORGANIC BUILD an allocation decision	Build a dedicated data-center and hyperscale power sales motion that sells supply certainty and speed; consciously allocate scarce capacity toward these higher-urgency, higher-value orders. Do not chase the thin storage slice.
AI Infrastructure (power)	ORGANIC (POWER) PARTNER (ENG)	Allocate constrained capacity toward AI data-center demand. On engineering, partner with the hyperscalers and AI-platform providers Hitachi Energy already powers, attaching GlobalLogic and Lumada to those relationships. A large AI-services acquisition is not recommended.
Automation	ORGANIC BUILD SCALE ACQ. OPTION	Build on JR Automation as the platform, and evaluate a bolt-on or scale acquisition of a complementary NA integrator or industrial-OT-software specialist where it deepens the software attach. The one place outside Water where a scale acquisition is genuinely on the table.
Water	ACQUIRE-OR-DECIDE	The acquisition question the client asked us to surface. Without an NA contract base the obtainable market stays under 3% of SAM; only an acquisition closes the gap in five years. Decide with eyes open — if appetite is low, Water reverts to monitoring and the capital goes to the power core.

THE THIN AND NONE SEGMENTS — A VERDICT, NOT A RECOMMENDATION

Mobility / Rail — monitor and bid selectively in signaling and digital rail. Not a capital priority.

Robotics — no separate play; lives inside Automation as the integration slice. No robot-hardware ambition.

EV — monitor; the only forward exposure is the charging-grid slice, captured within Energy and Grid. Components exit with Astemo.

Biosciences — monitor; defend the niche instrument lines. Not a category Hitachi will lead in NA.

Health Care — monitor; serve the proton niche opportunistically. Imaging is sold; no broad play.

Defense & Aerospace — monitor NA only through aerospace integration and instrumentation. Real momentum is Japan-domestic.

WHY THE STRONG CLAIMS CAN BE TRUSTED

Two facts kept explicit, one map that prevents double-counting

A strategy that overstates the weak segments cannot be trusted on the strong ones. These are the disciplines that keep the brief honest, treated as rigor rather than fine print.

HONESTY POINT ONE

Astemo is being sold. Hitachi is exiting automotive components.

On Hitachi's own December 2025 release, the stake moves 40% → 19% and Astemo becomes a Honda subsidiary, “no longer an equity-method associate of Hitachi.” After close (by the fiscal year ending March 2027), Astemo is not Hitachi's business. The EV-components right-to-win that looks real on paper is being divested; only the charging-grid slice is forward. Verified on Hitachi's own page.

HONESTY POINT TWO

Diagnostic imaging was sold to Fujifilm in 2021.

CT, MRI, ultrasound, X-ray — all Fujifilm's now. Hitachi is not a broad medical-imaging or hospital-equipment company in North America. This is the single place an outside analyst most often overstates Hitachi. What remains and is NA-addressable is narrow: proton therapy, IVD, health IT, regenerative medicine. Read no imaging revenue into the health-care position.

THE DE-OVERLAP MAP — WHY THE TWELVE TAMS DO NOT SUM

Any cross-segment total must apply these rules or it is a fiction. The four power-core positions in particular are four views of one advantage, sized by four demand drivers, and are never additive.

#	RULE
1	Energy is the parent; Grid Modernization is a subset — included within, not additive.
2	Data-center power, AI-infra power, and grid draw on the same Hitachi Energy transformer / switchgear capacity — attributed to each demand driver, never summed as separate supply.
3	The AI-infrastructure power slice is the AI-driven portion of data-center power — not a separate market.
4	The EV charging-grid slice overlaps Grid / Energy — attributed to EV, noted so it is not also counted in grid.
5	Automation and Robotics both run through JR Automation — split by work type (Automation = broad OT + software + integration; Robotics = integration slice), revenue not double-counted.
6	GlobalLogic / Lumada digital engineering appears in several segments — attributed to the segment whose end-market the engagement serves.

HOW TO READ EVERY NUMBER IN THIS BRIEF

Methodology & verification standard

WHAT EACH MEASURE MEANS

TAM is the full North American category revenue — the size of the pond, from a published research house or a defensible build. **SAM** is the slice Hitachi's real, existing business units address, capped by the capability map, with each removal stated. **SOM** is the realistically obtainable slice over five years, tied to the right-to-win posture (strong = 10–25% of SAM, credible = 3–10%, thin = under 3%, none = 0).

SAM and SOM are Hitachi-specific derivations

They are analytical, not third-party market figures. The reasoning is shown in each spread so a reader can follow and challenge it. Only TAM cells carry a research-house citation.

THE VERIFICATION STANDARD — THE LOAD-BEARING PART

A figure is marked **read on the source's own page** only where the owner's page was opened and the number read there during this brief. **Exactly five pages** were read that way. Every other figure is a search-index lead: a real lead, used for corroboration and for TAM anchors where the number is stable across houses, but honestly not an own-page read and never dressed as one.

Where houses diverge materially, the honest range is the stated truth. No single figure is stamped where the analysis does not support it. Tightening a range that the evidence does not support would be fabrication.

THE FIVE PAGES READ ON THE SOURCE'S OWN PAGE THIS BRIEF

SOURCE PAGE	WHAT IT ESTABLISHES
Hitachi Astemo divestiture release (hitachi.com)	The “no longer an equity-method associate” wording, verbatim — the automotive-components exit.
Hitachi Energy South Boston, VA release (hitachienergy.com)	The \$457M plant, ~825 jobs, \$1B+ program — the load-bearing SOM evidence for Energy, DC, Grid, AI-infra.
Mordor US Data Center report	TAM \$122.08B → \$168.34B (6.64%) and the 18–24-month transformer lead-time restraint.
Research&Markets / TBRC Grid Modernization report	Global TAM \$45.23B → \$81.97B (16%), NA-largest, and Hitachi Energy as the #1-profiled company.
Straits Research T&D report	NA T&D \$77.54B (2025), NA CAGR 5.98%, US \$65.91B, Canada \$11.63B — the firmest TAM anchor in the study.

Read on-page

Five pages, listed above. The load-bearing facts — the two divestiture-adjacent org flags and the capacity moat — rest on the owner's own pages.

Ranged honestly

Energy T&D TAM, grid-mod NA CAGR (~6–13%), EV charging CAGR (~18–21%), AI-infra TAM, and rail TAM — houses diverge, so the range is carried, never a single stamp.

Flagged, not dressed up

Defense NA SAM magnitude, the narrow Biosciences SAM, the small proton niche, and one Hitachi-reported figure (GlobalLogic ~73% growth) — carried with the flag, never as verified.

EVERY RESEARCH HOUSE AND PUBLIC FILING CITED

Sources

A dagger (†) marks one of the five pages read on the source's own page this brief; all others are search-index leads used honestly for corroboration and stable TAM anchors. Every load-bearing TAM is cited to a named house; every SAM and SOM is an explicitly-labeled Hitachi-specific derivation.

Hitachi primary

† Astemo share-transfer release, Dec 16 2025 (hitachi.com).
 † Hitachi Energy South Boston, VA transformer-plant groundbreaking, Jun 29 2026 (hitachienergy.com).
 FY2025 Consolidated Financial Results, year ended Mar 31 2026 (hitachi.com; search index).
 Integrated Report 2025 — High-Tech “wholly owned subsidiary” (hitachi.com; search index).
 Water & Environmental Solutions R&D, May 2026 (hitachi.com; search index).
 Reuters — Hitachi \$1B US grid components, Sep 4 2025.
 just-auto — India CCI clears Honda / Astemo, Jun 2026.

Energy / T&D

[T1] † Straits Research — NA T&D \$77.54B (2025), NA CAGR 5.98%, US \$65.91B, Canada \$11.63B.
 [T2] TechSci — global T&D \$201.12B (2025) → \$287.07B (2031), 6.11%, NA largest.

Data Centers

[D1] † Mordor — US data center \$122.08B (2026) → \$168.34B (2031), 6.64%.
 [D2] Arizton — NA data center construction to \$158.20B (2031).

Rail

[R1] Mordor — Railway System global \$40.39B (2026) → \$52.36B (2031), 5.35%.
 [R2] Mordor — Rail infrastructure global \$101.11B (2025) → \$126.54B (2030), NA CAGR 5.21%.
 [R3] MarketsandMarkets — NA Digital Railway \$2.71B (2026) → \$4.26B (2031).
 Fact.MR — Train Control & Management Systems (Hitachi named).

Biosciences

[B1] Mordor — Life Science & Chemical Instrumentation \$70.02B (2026) → \$97.05B (2031), 6.75%, NA largest.
 [B2] Fortune Business Insights — Life Science Instrumentation, US ~\$24.97B (2026).
 [B3] MarketsandMarkets — US IVD \$40.15B (2026) → \$57.18B (2031), 7.3%.

Health Care / proton

[H1] Knowledge Sourcing — Proton therapy global \$1.00B (2026) → \$1.32B (2031), 5.71% (Hitachi named).
 [H2] Mordor — Particle therapy \$1.88B (2026) → \$2.65B (2031), 7.05%, NA largest.
 [H3] Mordor — Proton therapy systems \$1.56B (2026) → \$2.20B (2031), 7.15%.
 [H4] Coherent — NA proton ~45.5% share.

EV

[E1] Mordor — US EV charging station \$43.66B (2026) → \$112.55B (2031), 20.85%.
 [E2] MarketsandMarkets — US EVSE \$38.62B (2026) → \$87.24B (2031), 17.7%.
 Yahoo / GlobalData — NA EV market \$102.66B (2026) → \$150.92B (2031), 8.01%.

Automation & Robotics

[A1] Mordor — NA Factory Automation & Industrial Controls \$60.55B (2026) → \$97.27B (2031), 9.95%.
 [A2] Mordor — Industrial Automation global \$238.37B (2026) → \$343.14B (2031), 7.55%.
 [RB1] IntelMarketResearch — NA heavy industrial robotics \$2.12B (2026) → \$4.84B (2034), 10.2%.
 Roots Analysis — global industrial robotics \$22B (2026) → \$35B (2030).

AI Infrastructure

[AI1] SNS Insider — AI infra global \$139.25B (2026), NA 39.56%, US \$37.67B (2025).
 [AI2] Technavio — AI infra, NA 44.7% of incremental growth.
 [AI3] McKinsey (via industry reporting) — \$5.2T AI DC buildout to 2030, “energizers” 25%; ABI — US AI DC capacity 8.2 GW (2026) → 21–26 GW (2031).

Grid Modernization

[G1] † Research&Markets / TBRC — grid modernization global \$45.23B (2026) → \$81.97B (2030), 16%, NA largest, Hitachi Energy #1 profiled.
 [G2] Fortune — smart grid NA \$18.87B (2025).
 [G3] Mordor NA smart grid CAGR 5.92%; GM Insights NA CAGR 8.3%.

Water

[W1] Mordor — Water & wastewater treatment technologies global \$69.08B (2026) → \$92.58B (2031), 6.03%.
 [W2] TechSci — US water & wastewater treatment chemicals \$4.98B (2025) → \$6.82B (2031).

Defense & Aerospace

[DF1] MarketsandMarkets — US defense cybersecurity \$8.72B (2026) → \$10.42B (2031), 3.6%.
 [DF2] Knowledge Sourcing — US AI-in-defense \$4.03B (2026) → \$10.95B (2031), 22.1%.

North America = United States + Canada (Mexico excluded). 2026 baseline, 2031 horizon. Every load-bearing TAM is cited to a named research house; every SAM and SOM is an explicitly-labeled Hitachi-specific analytical derivation with its reasoning shown; the org flags are resolved on Hitachi's own pages. Where houses diverge, the range is the truth. Discarded as evident typos, not used: one analytical-instrumentation figure mislabeled millions-for-billions and one proton figure mislabeled billions-for-millions.