

MARKET-RESEARCH MONOGRAPH SERIES

The Battery-*Can* Market

A study of the lithium-ion battery-can and structural-component market — the metal shell that houses the cell — read through one unusually clean participant: Sangsin EDP, Samsung SDI's prismatic-can supplier.

KOSDAQ 091580 · Sangsin EDP Co., Ltd.

Casing SAM, 2030 (high edge)	House CAGR band	Top-3 cell-can share	Prismatic share by 2030
USD 22bn	7–29%	~59%	~65%

Evidence base: five-plus research houses across three nested market layers (lithium-ion TAM · the casing SAM · prismatic-cell / cathode segments), with disagreement bands preserved as ranges; tier-1 demand anchors (BEES 15.8% CAGR to USD 106bn; US ESS 59→142 GWh); a top-3 ~59% competitive structure; and five years of Sangsin EDP segment, mix, capacity, geography and customer-concentration disclosure (DART 20260602000490). A market-research study, not investment advice — no price target; company financials cited only as market evidence.

Contents

THE ANALYTICAL SPINE

This document is a study of a *market* — the metal cans and structural components that house lithium-ion cells — told through a single, unusually pure participant. The spine runs from sizing the market, through the forces that move its demand, to a forward forecast with honest house-disagreement, the competitive structure, and only then the company as the lens that lets us read it.

—	Executive Summary <i>the market in one read; the lens stated</i>	3
1	The Market <i>sizing across houses (TAM / SAM), structure, segmentation, value chain</i>	5
2	Demand & the Five-Year Past <i>drivers; the prismatic mix-shift; the EV-boom→trough→ESS-recovery arc</i>	9
3	Forward Forecast (~5 yr) <i>the SAM fan; the ESS floor; the honest disagreement map</i>	13
4	Competitive Structure & Shares <i>concentration; peer scale; two ecosystems and a Chinese anchor</i>	16
5	The Company Within the Market <i>products as market participation; geography; capacity; the US wedge</i>	19
6	Three Market-Environment Scenarios <i>the casing market forward — not a price target</i>	22
7	What the Market Teaches <i>the generalizable lesson of a co-located, ecosystem-bound component market</i>	23
—	Working With Nathan Research <i>the expert bench & the open questions</i>	24
—	Appendix <i>sources · methodology · glossary</i>	26

ORIENTATION

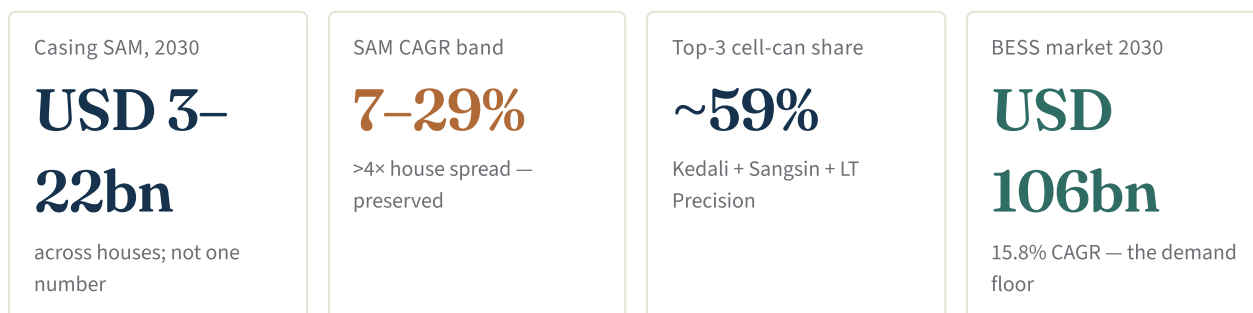
How to read this document. The market is the subject; Sangsin EDP is the lens. We chose it because ~91% of its revenue is one cell maker's casing demand DART 20260602000490 — which makes one supplier's books an unusually clean instrument for reading a sub-market. Where research houses disagree on size, we print the **range**, never a manufactured single point. There is no valuation, no multiple, no price target, and no bull/bear-as-thesis here; company financials appear only as evidence of a market dynamic. Per the market-study lens, KRX short-interest and price are deliberately **not** the opening hook.

Executive Summary

THE MARKET IN ONE READ

The market for lithium-ion battery cans is one of the most concentrated component markets in the energy-transition supply chain — and it is in the middle of two structural shifts at once. Three makers control roughly **59% of the world's power-battery cell cans**, and a single Chinese company, Kedali, makes about **half** of them ^{TYCORUN}. Underneath that concentration, the cell-format war is tilting hard toward the prismatic (hard-shell) can: prismatic's share of the top makers' output is set to move from **~40% (2020) to ~65% by 2030** ^{StoreDot / Frost & Sullivan}. Those two facts — who controls the market, and which format is winning — are the spine of this study.

This is a study of that market, read through **Sangsin EDP** (KOSDAQ 091580). We are explicit about why: roughly **91% of its revenue** is a single cell maker's casing demand — Samsung SDI's ^{DART 20260602000490}. That concentration, a risk if this were a company valuation, is exactly what makes its books a *clean instrument* — a near-pure read on one cell maker's casing sub-market. We do not value the company, set a price, or frame a bull/bear case.



Five things the market is doing

- ▶ **It is concentrated and ecosystem-bound.** Not a fragmented pool but a near-oligopoly: a Chinese cost/scale anchor (Kedali, ~51% of cell casings) above two Korean cell-maker ecosystems, each with its own captive can supplier ^{TYCORUN}.
- ▶ **It is rotating from round to prismatic.** Every point of share that moves from pouch to prismatic *adds a casing maker to the bill of materials* — pouch has no metal can. The mix-shift is a within-market tailwind for prismatic-can specialists.
- ▶ **It inherits the cell makers' cycle, amplified.** The casing market has no independent cycle: EV boom (2021–23) → the EV-chasm trough (2024) → an ESS-led recovery (2025), visible as one supplier's revenue and margin arc ^{DART 20260602000490}.
- ▶ **Its demand floor is now ESS, not EV.** Grid storage and AI-data-center power are turning prismatic-can demand structural and counter-cyclical — BESS to **USD 106bn by 2030** at 15.8% CAGR ^{MarketsandMarkets}.
- ▶ **It is geographically re-pointing to the US.** Anti-China-battery tariffs and localization create *new US casing markets* that the Chinese leader is structurally disadvantaged to serve — visible as a ~5× jump in one supplier's US revenue (₩4.8bn→₩25.1bn) ^{DART 20260602000490}.

The honest part: how big, and growing how fast?

The casing market sits as the inner ring of a nested structure — the global lithium-ion battery market (TAM) on the outside, the structural-components / cans market (the SAM) inside it, and the prismatic-cell and aluminum-case segments inside that. The growth *direction* is not in dispute: every house has the SAM growing. The *magnitude* is, by more than four times. Narrow-scope houses put the casing-component SAM anywhere from a **6.6% CAGR** (an aluminum-case price-compression view) to a **29% CAGR** (a prismatic-structure-components view that embeds the full mix-shift on top of volume) QYResearch family. We refuse to reconcile that to a single number; the disagreement is itself the finding, and we show it as a fan (Exhibit 2).

ON HOUSE TIER

A scope caveat we carry throughout. The tier-1 houses (Grand View, MarketsandMarkets, Mordor) size the rings on *either side* of the casing market — the lithium-ion TAM and the ESS demand sink — but do not size the narrow CAN-component SAM directly. The narrow-SAM figures come from the QYResearch-family aggregator houses, which we attribute explicitly and treat as ranges. We anchor the *narrative* to the tier-1 demand drivers and use the QYResearch band only for the *magnitude* of the casing market itself.

What the company evidences — and what it does not

Read as market evidence, Sangsin EDP's five-year arc is the cleanest single illustration of the casing cycle: revenue **₩197.5bn (2021) → ₩301.6bn (2023) peak → ₩250.1bn (2025)**, with operating income swinging from **₩30.2bn (2023) to a ₩8.2bn loss (2024) to ₩8.7bn (2025)** DART 20260602000490 — an EV boom, an EV-chasm trough, an ESS-led recovery, in one curve. Its product mix — **56% prismatic / 32% round** in 2025 — is the StoreDot/Frost “prismatic wins” thesis expressed as one supplier's revenue split. We use these only as reads on the market.

What the lens cannot tell us is also clear, and we flag it: it is a near-pure read on the *Samsung SDI* casing sub-market, not the whole market; private and Korean-listed peers (LT Precision, Dongwon Systems) are positioned qualitatively because their financials were not collected; and the 4680 / 46-series segment is genuinely un-sizeable as a point (house estimates span USD 8.5bn to USD 650bn by 2030–32) and is treated directionally only.

THE THESIS OF THE MARKET

i The one-line read. A concentrated, ecosystem-bound, geographically re-pointing component market — whose growth rate honest houses cannot agree on within 4×, but whose *direction* (prismatic up, ESS as the floor, the US as the new battleground) every house shares.

1 The Market

SIZING, STRUCTURE, VALUE CHAIN

The casing market only makes sense as the inner ring of a nested structure. Sizing it requires naming which ring each house is measuring — and the houses are measuring different rings, which is why a single “market size” for battery cans is a fiction. We name the three layers, then size each as a range.

THE THREE NESTED LAYERS

TAM — the global lithium-ion battery market (cell / pack / system). The outer frame; not our subject.

› **SAM** — battery structural components / cans (the addressable ring — *the document’s market*).

› **Segment lenses** — prismatic vs cylindrical vs pouch; aluminum case specifically.

Layer A — the context TAM

Kept only as the outer frame. The houses define the TAM *base year ~3.5× apart* (USD 58bn–201bn for 2024) purely on scope — cell-only vs. pack/system. That spread is a definitional artifact, not a forecasting disagreement, so the takeaway is the growth *direction* (a ~20% CAGR consensus), not the absolute level.

Exhibit 1 · Context TAM — global lithium-ion battery market, by house (market evidence: the outer ring)

House	2024 base	2030 size	CAGR '24–30	Scope
Grand View Research	USD 60.3bn	USD 182.5bn	20.3%	cell-led
The Research Insights	USD 60.3bn	USD 182.5bn	20.3%	cell-led
TechSci Research	USD 58.4bn	USD 187.7bn	21.3%	cell-led
MarketsandMarkets	USD 158.1bn	—	—	broader def.
Blackridge Research	USD 201.3bn	—	—	pack/system

Source: Grand View Research; The Research Insights; TechSci Research; MarketsandMarkets; Blackridge Research. Base-year spread is definitional (cell-only vs pack/system) — preserved as a range, never reconciled.

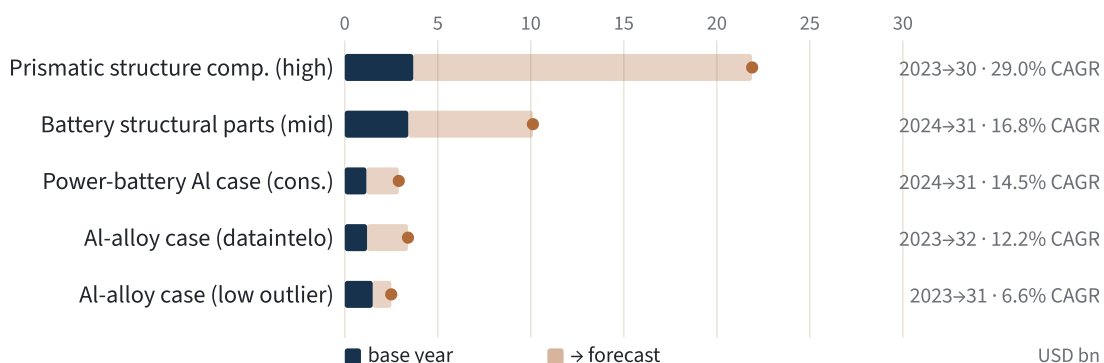
HOW TO READ LAYER A

Read: a ~20% CAGR consensus on the *rate*, sitting on a 3.5× spread in the *level* driven entirely by what each house counts. For the casing market, the signal is the direction of cell demand, not the absolute TAM. We do not propagate a single TAM figure forward.

Layer B — the SAM: battery structural components / cans

This is the directly addressable market — the metal shells, the parts a company like Sangsin EDP actually sells. It is the cleanest proxy for “the casing market.” House disagreement here is large and *real* (CAGR 6.6%–29%), so we present it as a fan, never a point. The 29% prismatic-components figure is the optimistic edge (it embeds the prismatic mix-shift); the 12–14.5% aluminum-case cluster is the conservative center of gravity; 6.6% is a low outlier embedding aluminum-case price compression.

Exhibit 2 · The casing SAM across houses — base→forecast, every house shown (not one number)



Source: QYResearch family (semiconductorinsight; openpr; verifiedmarketreports); NRG recompute. Most are QYResearch-family aggregator houses (factbase gap #7) — attributed as such; treated as a band, never averaged.

THE HERO CAVEAT

How to read the band. Keep the full ~7%–29% fan; do not reconcile. The tier-1 houses size the rings on either side of this one (the lithium-ion TAM and the ESS sink) but do not size the narrow CAN-component SAM directly — which is precisely *why* the SAM is intrinsically range-y. Anchor the magnitude to this band; anchor the narrative to the tier-1 demand drivers in §2–3.

Layer C — segment lenses (form factor & material)

The casing market is shaped by which cell format wins and which metal dominates. The prismatic-cell and prismatic-cathode segments are usable as a ~12–21% band; the 4680 / 46-series segment is *not* credible as a point and is excluded from any sizing.

Segment lenses on the casing market — form factor & material (market evidence)

Segment market	Base	Forecast	CAGR	Tier
Prismatic Li-ion cell	USD 12.4–12.5bn ('24)	USD 35.1–35.2bn ('33)	12.3–12.4%	usable band
Prismatic Li-ion cell (low)	USD 8.75bn ('24)	USD 22.45bn ('33)	12.5%	usable band
Prismatic cathode segment	USD 8.59bn ('23)	USD 31.00bn ('30)	20.1–21.6%	usable band
4680 / large-cylindrical	USD 2.5–10.1bn	non-credible	22–39%+	directional only

Source: verifiedmarketreports / themarketintelligence; businessresearch; Grand View Research. The 4680 / 46-series row is shown directionally only — house estimates span USD 8.5bn to USD 650bn by 2030–32 (factbase gap #2), non-credible as a point.

How the casing market is segmented

Four axes structure the market. The first — form factor — is the primary one, because it decides *which* casing line gets the order, and whether there is a casing in the bill of materials at all.

AXIS 1 — FORM FACTOR (PRIMARY)

- ▶ **Prismatic** — rectangular hard-shell metal can. Winning the EV/ESS format war; favored for volumetric energy density, pack packaging and thermal management. *The market's growth core.*
- ▶ **Cylindrical** — round metal can. Legacy 18650/21700 (power tools, appliances, BBU, consumer) plus the emergent 46-series / 4680-class for EVs.
- ▶ **Pouch** — laminated film, *no metal can.* Structurally outside this market — it removes the casing-maker from the bill of materials, so pouch share is itself a demand risk to the casing market.

AXIS 2 — COMPONENT WITHIN THE CELL CASE

- ▶ **The CAN** — the metal shell. Sangsin EDP's core; Kedali's core.
- ▶ **The Cap Assembly** — lid / safety-vent. Shinheung SEC's core; a distinct sub-market adjacent to the CAN.
- ▶ **CID / safety device** — internal current-interrupt and venting.

AXIS 3 — MATERIAL

- ▶ **Aluminum** — dominant and gaining on lightweighting; the prismatic CAN is overwhelmingly aluminum.
- ▶ **Steel / nickel-plated steel** — legacy, heavier; still present in some cylindrical cans.

AXIS 4 — END-APPLICATION (THE DEMAND-SINK MIX)

- ▶ **EV** — largest single sink; cyclical (currently in the “EV chasm”).
- ▶ **ESS / BESS** — fastest-growing; structural and counter-cyclical to EV.
- ▶ **Power tools / BBU / consumer** — legacy round-CAN demand.
- ▶ **Emerging** — humanoid-robot batteries (priced up to ~8× EV batteries per cell).

A STRUCTURING NUANCE

Why “casing maker” is not monolithic. The CAN and the Cap Assembly are separable sub-markets, and a given cell maker may dual-source them — Sangsin EDP supplies the CAN to Samsung SDI while Shinheung SEC supplies the Cap Assembly to the same customer. Reading “the casing market” therefore means reading a set of adjacent, partly-overlapping component pools, not one homogeneous product.

The value chain — who sells what to whom

FROM STRIP MILL TO OEM

Aluminum / steel strip mills → **CAN & structural-component makers** (Sangsin EDP, Kedali, Shinheung SEC, LT Precision) → **Cell makers** (Samsung SDI, LG Energy Solution, CATL, SK On) → Pack / BMS integrators → OEMs (automakers, ESS developers, power-tool brands, data-center BBU).

Three structural facts about this chain matter more than the size of any link in it:

- ▶ **Co-location is structural, not optional.** Component makers build lines *adjacent to cell-maker plants* — Hungary, China, Malaysia, now the US. The casing is a just-in-time, high-volume, low-shipping-density part; proximity is a hard requirement. Samsung SDI issues *weekly production plans rather than formal purchase orders* DART 20260602000490. The casing market therefore geographically tracks cell-plant build-out: a new gigafactory *creates a new local casing market*.
- ▶ **Selling is engineering, not marketing.** The buying criteria are development lead-time, quality and delivery — not brand or price-list. Sangsin frames its strategy as import-substitution of Japanese suppliers and as cutting lead time to Samsung SDI's required **45 days** DART 20260602000490. Entry barriers are qualification cycles and co-development, not capital alone.
- ▶ **The chain is captive-leaning.** Each casing maker anchors to one cell-maker ecosystem (\$4). That makes the casing market a set of *ecosystem-bound sub-markets* rather than one open contestable pool — and makes any single casing maker a near-pure read on its anchor cell maker's volume. This is the structural basis for using Sangsin EDP as the lens.

Adjacent demand-sink markets (sized; they set casing demand)

These are not the casing market itself, but they *set* its demand, so they belong in the sizing frame. They are detailed in §2–3 and anchor the forward narrative.

Exhibit 3 · The demand sinks that drive casing demand — sized by tier-1 houses (market evidence)

Demand sink	Base	Forecast	CAGR	Effect on casing
BESS / ESS (broad)	USD 50.81bn ('25)	USD 105.96bn ('30)	15.8%	the structural floor
BESS / ESS (narrow alt)	USD 7.8bn ('24)	USD 29.98bn ('30)	—	scope-labelled
Cell-to-pack battery	USD 6.7bn ('24)	USD 27.8bn ('30)	26.8%	enlarges the can
Korea data-center battery	USD 0.28–0.35bn ('26)	USD 1.1–1.5bn ('35)	14–18%	new round-CAN sink

Source: MarketsandMarkets (BESS); Mordor (APAC mix); SNE Research (US ESS GWh); PS Market Research (cell-to-pack); IndexBox (Korea data-center battery). ESS narrow- vs broad-scope figures both shown — not reconciled (factbase gap, demand \$2.5).

Casing demand is a derivative of cell demand, which is itself a derivative of two very different end-markets — **EV (cyclical)** and **ESS (structural)** — plus a within-cell **form-factor mix shift** that decides which casing line gets the order. The five-year-past trajectory, read through the lens company's own segment numbers, captures all three forces in one curve.

The four structural demand drivers

- ▶ **Driver 1 — prismatic is winning the cell-format war (a within-market tailwind).** Prismatic share ~40% (2020, top-6 makers) → ~65% by 2030 StoreDot / Frost & Sullivan. For the casing market this is the single most important mix signal: every point that shifts from pouch to prismatic *adds a casing maker to the bill of materials*, and shifts demand *toward* prismatic-line suppliers (Sangsin, Kedali) and *away* from pouch-pack specialists.
- ▶ **Driver 2 — EV: the largest sink, currently in the “EV chasm” (cyclical).** US BEV sales fell **–28% early 2026** after the federal EV tax credit lapsed Dec-2025 Seoulz; KED Global. Korean cell makers were hit hard — LG Energy Solution utilization fell to **47.6% (2025) vs 73.6% (2022)** KED Global. Because casing demand is downstream of cell utilization, this trough flowed straight into the casing makers (§2.3). EV is the *volatility source*.
- ▶ **Driver 3 — ESS: the structural, counter-cyclical swing driver.** Renewable integration plus AI-data-center power are turning ESS into the durable floor under prismatic-can demand. Samsung SDI — the only non-Chinese prismatic maker — is converting **three US lines from EV to LFP-ESS**, targeting **~30 GWh** of US ESS capacity, mass production H2-2026 Samsung SDI; The Elec; Electrek. This is the demand event that pulls the casing makers into US ESS lines.
- ▶ **Driver 4 — new vectors (optionality, not yet cleanly sized).** Data-center BBU (Korea data-center battery USD 0.28–0.35bn 2026 → USD 1.1–1.5bn 2035) and humanoid-robot batteries (priced up to ~8× EV per cell) are early premium casing vectors — carried as optionality, not quantified drivers.

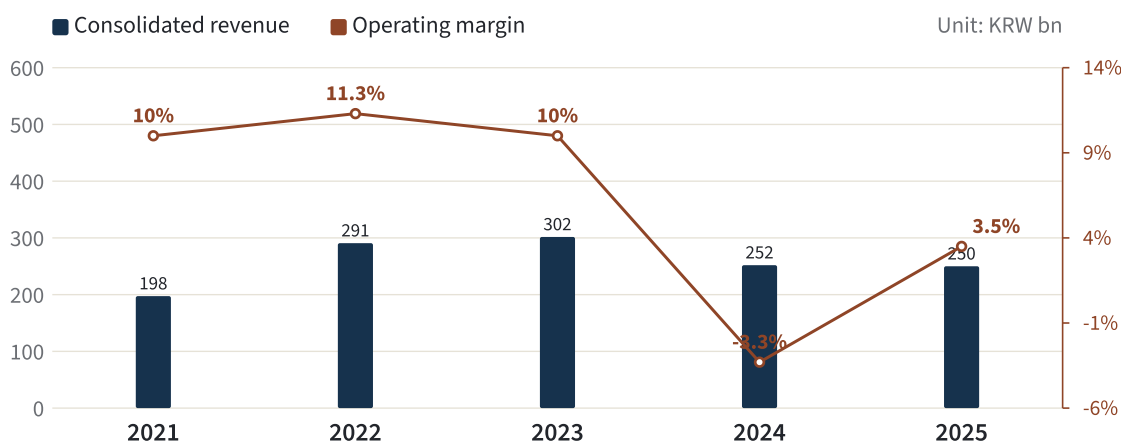
DRIVER SYNTHESIS

The structural read. EV is the swing; ESS is the floor; prismatic is the mix-tailwind that lifts the right suppliers regardless of total cell growth. A casing maker positioned on prismatic + ESS is positioned on the durable part of the curve — which is exactly where the lens company's product mix has rotated (§2.2).

The five-year-past trajectory — the market story in one curve

The casing market has no independent cycle; it inherits the cell makers' cycle, amplified at the margin. Read through the lens company's consolidated results, the arc is the thesis: EV boom (2021–23) → EV-chasm trough with an operating loss (2024) → ESS-led recovery (2025). We use this as market evidence, not as a valuation.

Exhibit 4 · The casing cycle in one supplier's books — revenue (bars) & operating margin (line), FY2021–25



Source: DART 20260602000490 (corrected FY2025 Annual Report, 2026-06-02); NRG recompute. Operating margin recomputed = operating income ÷ revenue. FY2024 uses the corrected series (rev ₩251.8bn / OP -₩8.2bn; factbase gap #1).

What the market was doing behind the curve — FY2021–25 (market evidence)

FY	Revenue (₩bn)	Op. income (₩bn)	Op. margin	What the market was doing
2021	197.5	19.7	10.0%	EV-cell boom begins
2022	290.8	32.8	11.3%	peak EV build-out
2023	301.6	30.2	10.0%	revenue peak; round CAN still large
2024	251.8	-8.2	-3.3%	EV-chasm trough — an operating loss
2025	250.1	8.7	3.5%	ESS-led recovery; prismatic / US ramp

Source: DART 20260602000490 (corrected FY2025 Annual Report, 2026-06-02); NRG recompute. FY2024 restated; the earlier filing line (₩245.1bn / -₩6.5bn) is not mixed into this series (factbase gap #1).

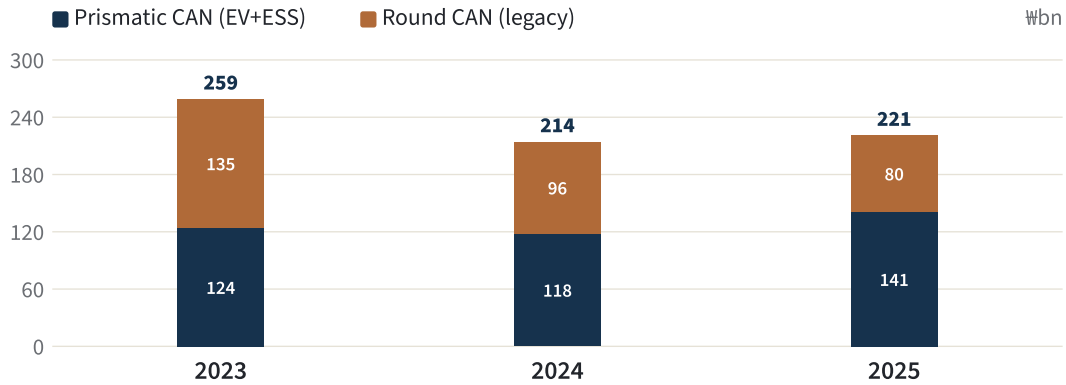
WHY THE MARGIN LINE MATTERS

The amplification point. Revenue fell ~17% peak-to-2025, but operating income swung from +₩30.2bn to a loss and back — a far larger range. The casing market does not merely track the cell cycle; it amplifies it at the margin, because casing lines carry fixed cost against utilization that collapses with cell-maker utilization.

The form-factor mix shift, quantified within the lens

The cleanest, most concrete read on “prismatic up, round down” is the lens company’s own product-mix split. Within a roughly flat total, demand is rotating *out* of legacy round CAN and *into* prismatic — exactly the StoreDot/Frost market call, observable in one supplier’s books.

Exhibit 5 · Round→prismatic rotation — product-line revenue, FY2023–25 (market evidence: the mix-shift in motion)

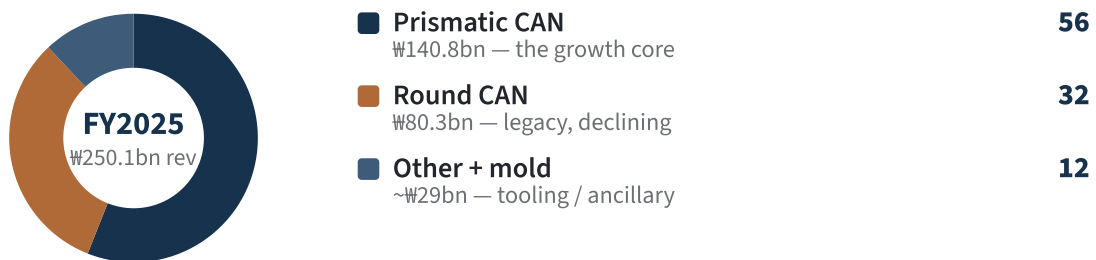


Source: DART 20260602000490 (corrected FY2025 Annual Report, 2026-06-02); NRG recompute. Totals are the two named product lines only (the remaining ~12% is other + mold).

The supporting micro-evidence runs the same direction:

- ▶ **Prismatic exports jumped ₩3.6bn (2023) → ₩35.4bn (2025)** DART 20260602000490 — the ESS / US-ramp signature, since exports follow the cell maker’s overseas ESS lines.
- ▶ **Round-CAN production fell 1,973m units (2023) → 1,124m (2025); round-CAN utilization fell 65.6% (2023) → 34.5% (2025)** DART 20260602000490 — the declining legacy leg has visible overcapacity while prismatic ramps.

Exhibit 6 · The mix, read as the market — FY2025 revenue split (market evidence: prismatic = the growth core)



Source: DART 20260602000490 (corrected FY2025 Annual Report, 2026-06-02); NRG recompute. Shares of FY2025 consolidated revenue.

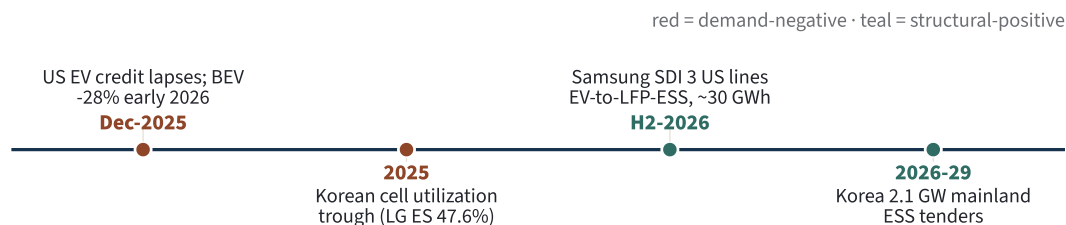
THE MIX, READ AS THE MARKET

The mix IS the market call. A 56% prismatic / 32% round split is the “prismatic wins” thesis expressed as one supplier’s revenue split — and the year-on-year rotation (prismatic +₩22.6bn, round –₩54.7bn since 2023) is the market shift caught in motion, not a forecast.

Structural & regulatory shifts reshaping demand

Five forces are re-pointing where casing demand goes — geographically, by chemistry, and by architecture. The most important, for non-Chinese casing makers, is the geopolitical import-substitution wedge.

Exhibit 7 · The forces re-pointing casing demand, 2025–26 (market evidence: structural & regulatory shifts)



Source: Seoulz; KED Global; Samsung SDI; The Elec; SEIA / P3 / GT Law summaries.

- ▶ **Geopolitical fracturing — the import-substitution / de-China wedge.** US anti-China-battery tariffs and IRA-era localization push non-Chinese cell makers to localize US production, which *creates new US casing markets* that the Chinese leader (Kedali) is structurally disadvantaged to serve. The lens company cites these tariffs as a share-gain tailwind DART 20260602000490. This is the single most important structural shift *for the non-Chinese cohort*.
- ▶ **The EV-credit cliff.** The US federal EV credit lapsed Dec-2025 → BEV -28% early 2026. Demand-negative near-term; the forecast’s central disagreement is how long it persists (\$3).
- ▶ **EV→ESS line conversion.** Casing makers follow the line conversion — a structural re-pointing of demand from automotive to grid / data-center.
- ▶ **LFP adoption in ESS.** The aluminum prismatic can is largely chemistry-agnostic, so the LFP-ESS wave is demand-positive for prismatic-can makers regardless of cathode.
- ▶ **Cell-to-pack architecture.** CTP (26.8% CAGR to USD 27.8bn by 2030) removes module-level parts but *keeps and enlarges the cell can* — structurally positive for casing demand even as it compresses other component sub-markets.

3 Forward Forecast (~5 yr)

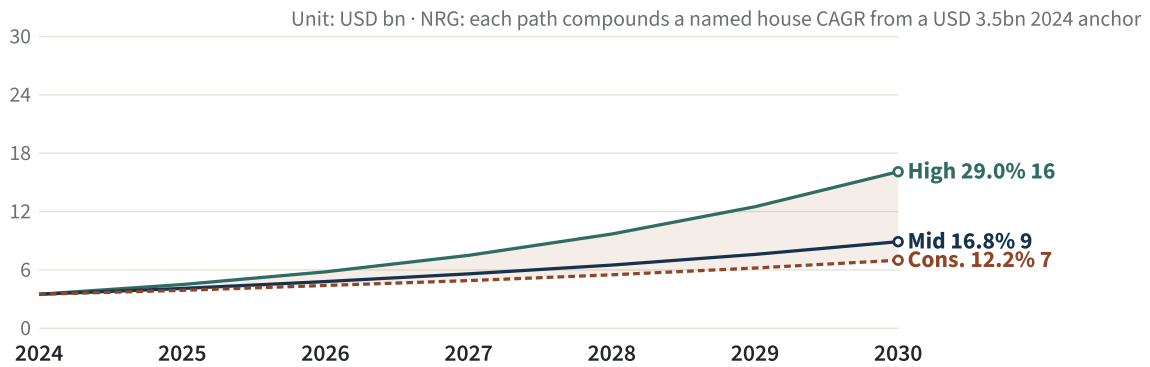
SCENARIO RANGES & HOUSE DISAGREEMENT

We forecast the casing / battery-structural-component market forward ~5 years. The honest position is that houses disagree by more than four times on the narrow-SAM CAGR, so the deliverable is a **fan with named edges**, not a point. The disagreement is itself the finding. We anchor the *narrative* to tier-1 demand drivers and use the QYResearch-family band for the *magnitude*.

The cleanest forward band – the structural-components SAM

The credible center of gravity is mid-teens: the structural-parts 16.8% and aluminum-case 12–14.5% cluster. The 29% edge embeds the full prismatic mix-shift on top of volume growth; the 6.6% edge embeds aluminum-case price compression and conservative volume.

Exhibit 8 · The casing SAM forward, ~5 yr — a fan, not a point (forward MARKET size, USD bn)



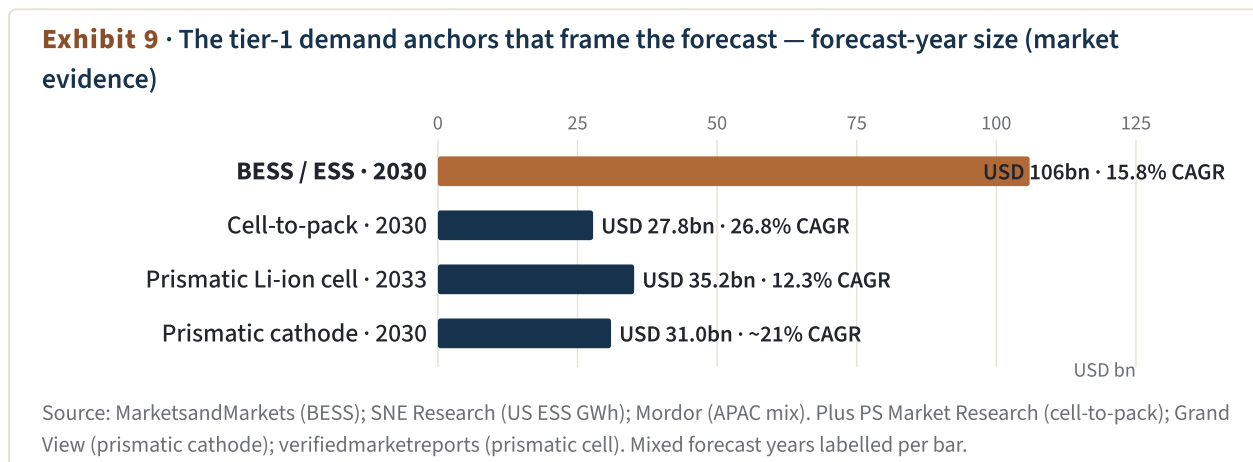
Source: NRG scenario model on the QYResearch-family SAM band; tier-1 demand anchors per Appendix. Edges = QYResearch-family CAGRs (29.0% / 16.8% / 12.2%); the anchor is the structural-parts house 2024 base (~USD 3.4–3.5bn). Not reconciled to one number (factbase gaps #5, #7).

THE HONEST FORECAST

Reading the fan. By 2030 the same market is USD ~7bn (conservative) to USD ~16bn (high) depending only on which house you believe — a >2× spread on size, from a >4× spread on rate. That is not analytical sloppiness; it is the genuine state of knowledge for a narrow component SAM that the tier-1 houses do not cover directly. We print the spread rather than a false midpoint.

The demand-side anchors that frame the forecast (tier-1)

Where the narrow SAM is range-y, the demand sinks that drive it are sized by tier-1 houses with far tighter agreement. The most important is ESS, the structural floor under prismatic-can demand even if EV stays soft.



- ▶ **ESS = the structural floor.** BESS at 15.8% CAGR to **USD 105.96bn by 2030**
MarketsandMarkets; US ESS demand **59 GWh (2025) → 142 GWh (2030)** SNE Research. Policy- and data-center-anchored, so less cyclical than EV.
- ▶ **EV = the cyclical swing.** Post-2025 US credit cliff (BEV -28% early 2026); recovery *timing* is the central disagreement axis and the single biggest swing variable between the three scenarios.
- ▶ **Prismatic mix-shift = a within-market tailwind.** Toward ~65% by 2030, lifting prismatic-can specialists independent of total cell-market growth.
- ▶ **CTP = quiet positive.** 26.8% CAGR to USD 27.8bn by 2030, enlarging the can while shrinking module parts.

The honest disagreement map

Exhibit 10 · Where houses agree and disagree on the forecast (market evidence: the disagreement itself)

Forecast axis	Where houses agree	Where they disagree
Casing SAM direction	all positive growth	magnitude: 6.6% vs 29% CAGR (>4x)
Prismatic mix	gaining toward ~65% by 2030	pace; pouch's residual floor
ESS demand	strong, structural (15.8%+ CAGR)	scope / level (USD 7.8bn vs 50.81bn)
EV demand	cyclical, near-term soft	recovery timing — the biggest swing
4680 / 46-series	directionally high-growth	non-credible as a point — excluded

Source: synthesis of QYResearch family, MarketsandMarkets, SNE Research, StoreDot/Frost, PS Market Research per the Appendix. The reporting rule: put the SAM fan and the ESS floor side by side; let EV-recovery timing be the explicit swing.

Three environments the casing market could run in

These describe the *market*, not any security — no price targets, no valuation. Each maps to a band of the SAM fan and turns on a different driver. They are detailed as a forward market table in §6.

A · ESS-led structural growth

The floor holds. Renewables + AI-data-center power + US LFP localization sustain prismatic-can demand straight through the EV trough.

ESS line conversions (Samsung SDI ~30 GWh US LFP-ESS, MP H2-2026) and Korea's 2.1 GW 2026–29 tenders keep casing lines loaded even with EV soft.

Casing SAM → mid-to-high band (~16–29%); geography re-points to grid / data-center. Non-Chinese makers benefit disproportionately.

B · EV-recovery reflation

The cycle turns. EV demand normalizes 2027+ as the credit-cliff shock fades and a new model cycle lands.

Both round / 46-series and prismatic lines refill; cell-maker utilization rebuilds toward 2022 levels (vs the 47–48% 2025 trough).

Casing SAM → upper band; the legacy round-CAN leg (34.5% utilized) re-rates rather than merely declining. The scenario where 4680 / 46-series starts to matter.

C · China-cost compression

The squeeze. Kedali's scale (RMB 12.03bn, >95% structural parts) plus broad Chinese oversupply compress non-Chinese margins.

Aluminum-case price compression dominates, pushing the realized CAGR toward the **conservative-to-low band (~6.6–14.5%)** in value terms even as unit volume grows.

The de-China localization wedge (US tariffs) is the partial offset that keeps non-Chinese suppliers' *served* market growing while the *global average* margin erodes.

WHAT SEPARATES THE THREE

The swing variable, named. The difference between these three is, above all, *EV-recovery timing* — the one axis on which houses most disagree. ESS sets the floor in all three; prismatic gains in all three; only the speed of the EV refill, and the intensity of Chinese price competition, move the market between the bands. We do not blend them into a single CAGR.

4 Competitive Structure & Shares

CONCENTRATION & ECOSYSTEMS

The casing market is concentrated, ecosystem-bound and geopolitically fracturing — three structural features that together explain who wins which order. This is not a fragmented industry: it is a near-oligopoly at the top, with a single Chinese cost/scale anchor and a geopolitically-defined contest for the non-Chinese remainder.

The concentration fact

- ▶ **Top-3 (Kedali + Sangsin EDP + LT Precision) ≈ 59% of global power-battery cell cans** TYCORUN.
- ▶ **Kedali alone ≈ 51% of power-battery cell casings** TYCORUN, narrow scope — about half the world’s cell casings come from one Chinese company.

Exhibit 11 · Concentration of global power-battery cell cans — the hook (market evidence: structure)



Source: TYCORUN (top-3 ≈59%; Kedali ≈51%, narrow “cell casing” scope). The remainder is the geopolitically-contested pool.

THE SCOPE CAVEAT ON KEDALI

Two scopes, kept apart. Kedali’s *own* 2024 report puts it at **~29% of Li-ion structural parts** (the broader “all structural parts” scope, not just the cell can). The 51% figure is the narrower “cell casing” lens. We present *both* with scope labels and do **not** average them — averaging two different denominators would manufacture a false number (factbase gap #5).

The competitive landscape — named players, by scale

Where listed-peer revenue is disclosed, the scale gap is the story: Kedali operates at roughly ten times the lens company’s revenue. Private and Korean-listed peers (LT Precision, Dongwon Systems) are positioned qualitatively — their financials were not collected, and we do not invent numbers (factbase gap #4).

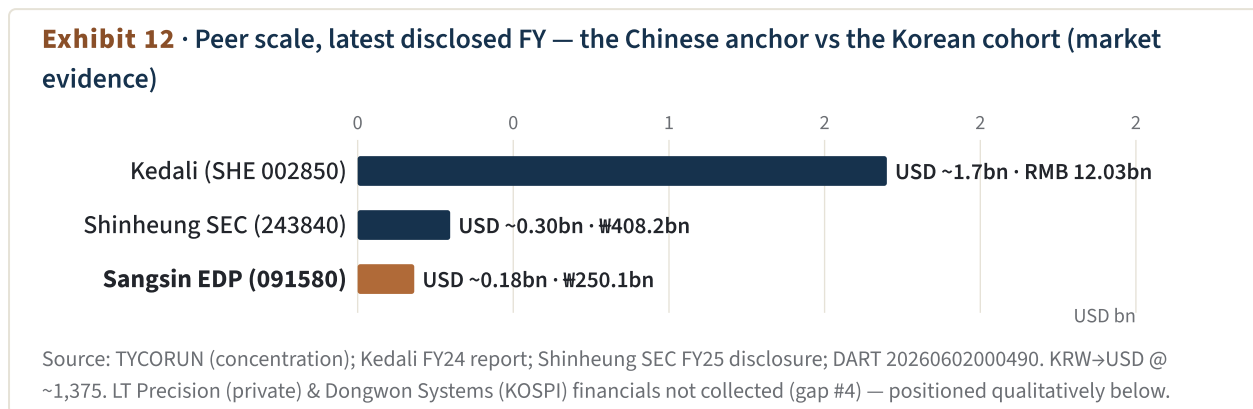


Exhibit 13 · The named landscape — listing, scale, position (market evidence)

Peer	Listing	Scale (latest FY)	Position
Kedali	SHE 002850	RMB 12.03bn	global #1 cell-casing maker; structural parts >95% of revenue; serves CATL / LG ES / Samsung SDI; into Hungary, Malaysia, US
Sangsin EDP	KOSDAQ 091580	₩250.1bn	Samsung SDI’s prismatic + round CAN supplier; ~80% of SDI prismatic CAN, >90% of round CAN
Shinheung SEC	KOSDAQ 243840	₩408.2bn	Samsung SDI’s Cap Assembly + CAN + round CID; FY25 OP ₩5.9bn (-55% YoY); 2027E rev ₩610.7bn
LT Precision	private (LT Group)	not collected	LG Energy Solution round-CAN supplier; US Michigan plant; pursuing the SDI–GM prismatic CAN
Dongwon Systems	KOSPI	not collected	pursuing LG ES prismatic-CAN entry
BlueCapCan	private	₩150bn (2027 target)	emerging prismatic-can entrant (company target)

Source: Kedali FY24 report; DART 20260602000490 (Sangsin); Shinheung SEC FY25 disclosure; etoday / dailyinvest IR; company targets. “not collected” = financials outside this packet (gap #4); positioned qualitatively, no invented numbers.

The structure — two ecosystems plus a Chinese anchor

The casing market is not one open pool; it is a set of ecosystem-bound sub-markets. Each casing maker anchors to one cell-maker ecosystem, while the Chinese leader sits above both as the cost/scale anchor that serves everyone.

THE MAP OF THE MARKET

Kedali (China — cost/scale anchor, ~51% of cell casings) sits above both camps and serves CATL plus everyone.

Samsung SDI ecosystem — Sangsin EDP (CAN) + Shinheung SEC (Cap Assembly + CAN), co-located across Hungary / China / Malaysia / US, following Samsung SDI's plant map.

LG Energy Solution ecosystem — LT Precision (round CAN) + Dongwon Systems (entering prismatic), with Kedali also supplying.

The wedge that moves share = geopolitics

US anti-China-battery tariffs and IRA-era localization are the lever the non-Chinese suppliers are pulling. As Samsung SDI and LG ES localize US production, the *served* market shifts toward suppliers that can co-locate in the US — structurally favoring Sangsin / Shinheung / LT Precision over Kedali in the US sub-market, even as Kedali keeps its global cost lead. This is the single most important competitive dynamic for the non-Chinese cohort, and it is why the US is the battleground in \$5.

THE STRUCTURAL CONTEST

The competitive read. A near-oligopoly where the Chinese anchor cannot be beaten on cost — but can be beaten on geography, qualification and tariff exposure in any sub-market that localizes. The competitive question for every non-Chinese maker is not “can we out-scale Kedali?” (no) but “can we own the local, tariff-protected ecosystem our anchor cell-maker is building?”

5 The Company Within the Market

PRODUCTS AS MARKET PARTICIPATION

Sangsin EDP is the lens, not the subject. Its value to this study is that it is an unusually *clean instrument* for reading the casing market: one product family (metal cans), one anchor customer (~91% of revenue), and a footprint that mirrors that customer’s plant map. Every datum below is the market expressing itself through one participant – market evidence, never a valuation.

Products = market participation

Product line	FY25 share	What it participates in
Mid-large prismatic CAN	56%	EV + ESS — the growth core; the company frames prismatic as the winning trend and ESS as the durable demand
Round CAN	32%	power tools, appliances, tablet / notebook, BBU, legacy EV cylindrical; planned extension into 46-series / 4680-class
Other + mold	~12%	tooling / mold sales + ancillary

Source: DART 20260602000490. The product mix IS the market call (\$2.2): 56% prismatic / 32% round is the “prismatic wins” thesis as one supplier’s revenue split.

Segment economics — the five-year arc, as market evidence

The curve traces the cell cycle (Exhibit 4): EV boom (2021–23) → EV-chasm trough with an operating loss (2024) → ESS-led recovery (2025). We restate it here as the cleanest single illustration of the casing market’s inherited cyclicalty — not as a company value argument.

FY2025 revenue ₩250.1bn consolidated	FY2025 op. income ₩8.7bn recovery from -₩8.2bn	Prismatic CAN ₩140.8bn 56% of revenue	Round CAN ₩80.3bn 32% — declining leg
---	---	--	--

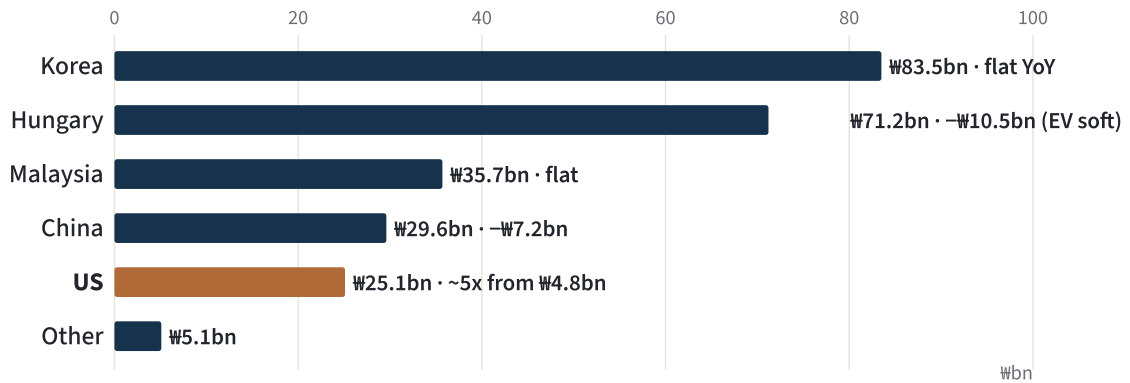
THE LENS, JUSTIFIED

Why this company can stand in for a sub-market. One product family, one anchor customer, one mirroring footprint — the three properties that make a participant a clean instrument rather than a noisy one. The next pages read its geography, customer concentration and capacity *as the market*.

Geography = the cell maker’s plant map

The casing footprint tracks the cell maker’s plants. The single most important geographic signal is the US: a ~5× jump in one year, the de-China localization wedge expressed in revenue, against softening Hungary and China as the EV chasm and footprint re-pointing play out.

Exhibit 14 · The casing footprint follows the cell plants — FY2025 revenue by region (market evidence)



Source: DART 20260602000490 (corrected FY2025 Annual Report, 2026-06-02); NRG recompute. US ₩4.8bn (FY24) → ₩25.1bn (FY25) — the de-China localization wedge in revenue.

The customer-concentration fact — why this is a clean lens

- ▶ **Single customer “A-sa” = ₩226.6bn (2025) ≈ 91% of consolidated revenue**
DART 20260602000490, segment note; A-sa = Samsung SDI per public IR.
- ▶ This is a *market-structure fact*, not a risk-rated valuation point: for this participant, the casing market’s fortunes *are* Samsung SDI’s casing demand. It is the reason the company can stand in for “the Samsung SDI casing sub-market.”
- ▶ Selling logic: no formal POs — Samsung SDI issues *weekly production plans*; the stated strategy is import-substitution of Japanese suppliers and cutting lead time to SDI’s required **45 days**. Buying criteria = lead-time + quality + delivery, not price / brand DART 20260602000490.

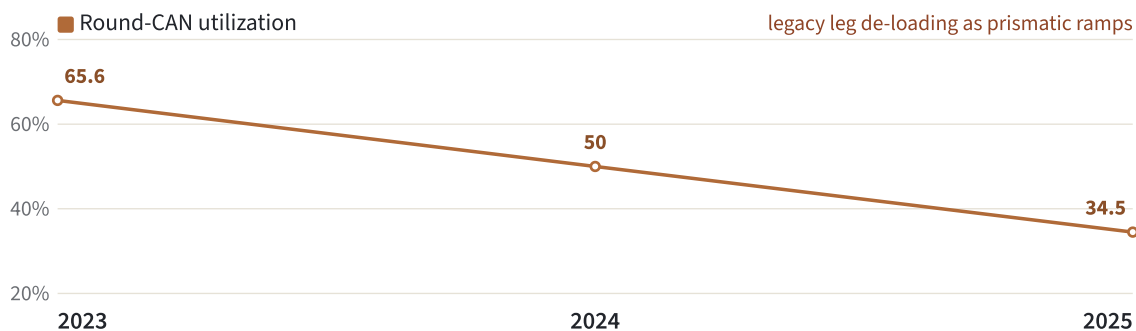
SCOPE OF THE LENS

The lens caveat, stated plainly. Because ~91% of revenue is one cell maker, this company is a clean read on the *Samsung SDI casing sub-market* — not on Kedali’s Chinese pool, not on the LG ES ecosystem. The market study generalizes from a clean instrument; it does not claim the instrument *is* the whole market.

Capacity & utilization — the legacy / growth split, quantified

One company’s two utilization rates literally show the market’s rotation: the legacy round-CAN leg is under-loaded while the prismatic leg builds. This is the round→prismatic mix-shift (§2.2) expressed as capacity utilization.

Exhibit 15 · The market’s rotation as utilization — round-CAN load collapsing, FY2023–25 (market evidence)



Source: DART 20260602000490 (corrected FY2025 Annual Report, 2026-06-02); NRG recompute. Round-CAN utilization 65.6% (2023) → 34.5% (2025); 2024 interpolated for the line (the disclosed endpoints are 2023 and 2025). Round-CAN capacity 3,258m units; prismatic 182m units (2025).

The forward market-participation signal — US expansion

- ▶ **Sangsin Indiana** (est. 2023) + **Sangsin Kokomo** (est. 2025); adding **3–4 prismatic-CAN lines (6 → 9–10 total)**, setup by Q3-2026, production Q4-2026, to serve Samsung SDI’s ~30 GWh US LFP-ESS near the SDI–Stellantis StarPlus Energy plant in Kokomo, IN The Elec; Theguru.
- ▶ **US anti-China-battery tariffs cited as a share-gain tailwind** DART 20260602000490 — the company explicitly framing the geopolitical wedge as its US opportunity.
- ▶ *As market evidence:* this is the casing market’s US-localization wave — dated and line-counted through one supplier.

Company facts, kept separate from market facts

COMPANY-LEVEL CAVEATS

Two items are **company** facts, not market facts, and we flag them as such: (1) **Sangsin Indiana’s FY2025 qualified audit opinion** (PNJK Partners LLP) re: an opening-inventory audit-evidence limitation (factbase gap #6); (2) **Sangsin Hi-tech (China / Tianjin) battery production / sales ceased**, excluded from capacity math (gap #9). Neither is a read on the market; both are noted for completeness and not used as market evidence.

ON KRX

KRX note (factbase gap #8). KRX series for Sangsin EDP exist (ohlc / short_balance / short_volume / universe) but were *not* consulted — this lens removes the short-interest hook, and no listed-share-count change required cross-checking against a DART capital event. KRX is near-unused by design; it is not a valuation input here.

6 Three Market-Environment Scenarios

THE MARKET
FORWARD

These describe the **casing market** forward, not any security — no price target, no valuation, no investor positioning. Each scenario maps to a band of the SAM fan (Exhibit 8), turns on a named driver, and re-points geography differently. The swing variable across all three is EV-recovery timing; ESS is the floor in every one.

Exhibit 16 · Three environments for the casing market, ~5-yr forward (market scenarios — not price targets)

Dimension	A · ESS-led growth	B · EV-recovery reflation	C · China-cost compression
SAM CAGR band	mid-high (~16–29%)	upper band	cons.-low (~6.6–14.5%)
Lead driver	ESS + US LFP localization	EV demand normalizes 2027+	Chinese oversupply & price
EV assumption	stays soft; doesn't matter	refills toward 2022 levels	soft; volume-not-value growth
Round / 46-series leg	stays de-loaded	re-rates; 4680 starts to matter	price-compressed
Geography re-points to	US / grid / data-center	broad refill incl. legacy	wherever tariffs protect
Non-Chinese cohort	benefits disproportionately	broad lift	<i>served</i> market grows, margin erodes

Source: NRG scenario synthesis on the QYResearch-family SAM band (Exhibit 8) and tier-1 demand anchors (Exhibit 9). Describes the market environment only; no security, price, or valuation is implied.

ON READING THE SCENARIOS

What the scenarios are not. They are not bull / base / bear cases for a stock; there is no security here. They are three coherent *market environments*, each internally consistent with a band of the house-disagreement fan. The point is to show that the casing market's forward range is wide because the *drivers* are genuinely contested — not because the analysis is imprecise.

The battery-can market is a particularly clean example of a broader pattern in the energy-transition supply chain: a **co-located, ecosystem-bound, geopolitically-contested component market** whose growth is not in question but whose magnitude honest analysts cannot agree on. Three lessons generalize beyond this one market.

- ▶ **1 – In a derivative market, structure beats size.** The casing market's absolute size is genuinely uncertain (a >4× CAGR spread), but its *structure* – concentration, ecosystem-binding, the prismatic mix-shift, the ESS floor – is well-known and decisive. For a derivative component market, the durable analysis is structural, not point-estimate sizing. We refuse to manufacture a single number where the houses genuinely disagree.
- ▶ **2 – Co-location turns a global market into a set of local ones.** Because the casing is a JIT, low-shipping-density part, the market is not one contestable pool but a set of plant-adjacent sub-markets. A new gigafactory creates a new local casing market; the supplier that co-locates first, and qualifies, owns it. This is why geography – not price – is the share-moving variable, and why the US localization wave is the single most important forward dynamic for the non-Chinese cohort.
- ▶ **3 – A clean instrument can read a market the houses do not size directly.** The tier-1 houses do not size the narrow CAN-component SAM. But a participant with one product family, one anchor customer and a mirroring footprint – ~91% single-customer concentration – is a near-pure read on its sub-market. The lesson for market research: where top-down sizing is thin, a carefully chosen bottom-up instrument can carry the read, provided its scope is stated honestly.

WHAT THIS MARKET TEACHES

✓ **The market, in one sentence.** A concentrated, co-located, ecosystem-bound component market that inherits the cell makers' cycle – rotating from round to prismatic, floored by ESS, and re-pointing to the US – whose growth direction every house shares and whose growth rate none of them can agree on within 4×.

The next two pages describe how Nathan Research works with funds that need to act on a market like this one – and the open questions this study deliberately leaves for primary research.

Working With Nathan Research

EXPERT NETWORK & PRIMARY
RESEARCH

This study is a top-down read on a market the tier-1 houses do not size directly. Where it leaves genuine uncertainty — narrow-SAM magnitude, private-peer scale, the pace of the US localization wave — Nathan Research closes the gap with an expert network and primary diligence fitted to the battery-structural-components chain.

A sector-fitted expert bench

- ▶ **Cell-maker procurement veterans** — former Samsung SDI / LG ES sourcing leads who can validate the weekly-production-plan cadence, the 45-day lead-time bar, and qualification cycles.
- ▶ **Casing-line engineers** — prismatic vs round-CAN process economics, aluminum-strip cost pass-through, and US line build-out timelines.
- ▶ **ESS / BESS developers** — the demand-floor read: LFP-ESS line conversions, US ~30 GWh ramp, Korea 2.1 GW tenders.
- ▶ **Trade / tariff counsel** — the de-China wedge: how anti-China-battery tariffs and IRA localization actually re-route casing orders.
- ▶ **Korean component-supply analysts** — the Samsung SDI vs LG ES ecosystem map, and the contested LG ES prismatic-CAN entry.
- ▶ **China-channel checks** — Kedali capacity, pricing posture, and overseas (Hungary / Malaysia / US) build-out.

How an engagement runs

1 · Scope

We fix the decision the market read must serve — sub-market, geography, horizon — and identify which uncertainties below are decision-relevant.

2 · Source

We field the fitted expert bench and run primary checks against the open questions — peer scale, US-ramp timing, price posture — with compliance gating throughout.

3 · Synthesize

We deliver a decision-ready read: structural conclusions held firm, genuine ranges preserved, and residual uncertainty named, not hidden.

OPEN QUESTIONS

The questions this study leaves open — and that primary research can close:

- **The narrow-SAM magnitude.** The tier-1 houses do not size the CAN-component SAM; the >4× CAGR spread is real. Expert triangulation can narrow it per sub-market.
- **Private / Korean-listed peer scale.** LT Precision and Dongwon Systems financials were not collected; a quantitative peer exhibit needs primary or DART/EDGAR escalation.
- **US-localization pace.** The 3–4-line US build-out (Q4-2026) and Samsung SDI’s ~30 GWh ramp set the casing market’s US trajectory; timing is checkable with channel work.
- **4680 / 46-series demand.** Un-sizeable from the desk (USD 8.5bn–650bn); only primary demand-signal work can bound it.

Partner With Nathan Research

CONTACT

Nathan Research Group is an independent equity- and market-research house covering KOSDAQ-listed participants in the energy-transition, healthcare and technology supply chains — written for foreign PE / HF readers who need *the* read on a Korean market, not a translated sell-side note.

WEB www.nathanrg.com

EMAIL team@nathanrg.com general & engagement enquiries

nathan@nathanrg.com Nathan Choi, CEO

PHONE [+82 10 3059 3630](tel:+821030593630) mobile

[+82 2 939 3630](tel:+8229393630) office

ENGAGEMENT

What you can commission. A market read fitted to your decision (this monograph is the desk-research layer); an expert-network engagement against the open questions above; or a standing coverage relationship across the KOSDAQ supply chains we follow. Every deliverable preserves genuine ranges and names residual uncertainty — the house style is evidence-first, not narrative-first.

Important notice. This document is a market-research study prepared by Nathan Research Group for institutional readers. It is **not investment advice**, not an offer or solicitation, and contains **no price target, valuation, or recommendation** regarding any security. The subject is the market for lithium-ion battery cans and structural components; Sangsin EDP (KOSDAQ 091580) is used as an analytical lens and its financials are cited **only as evidence of a market dynamic**, never as a value argument. Market sizes are attributed to named third-party research houses and are preserved as ranges where those houses disagree; figures flagged as unverified or non-credible are labelled and not propagated. Company-specific figures derive from public DART filings (recept_no cited inline). KRX price / short-interest data was near-unused by design and is not a valuation input. Readers must conduct their own diligence. © 2026 Nathan Research Group.

Appendix

SOURCES · METHODOLOGY · GLOSSARY

Sources

MARKET-RESEARCH HOUSES (SIZING)

Casing SAM (narrow): QYResearch family — semiconductorinsight; openpr; verifiedmarketreports; themarketintelligence; businessresearch; dataintel / MR Intellect. *Treated as a ~7–29% CAGR band, attributed explicitly as second-tier aggregators (gap #7).*

Lithium-ion TAM (context): Grand View Research; The Research Insights; TechSci Research; MarketsandMarkets; Blackridge Research.

Demand sinks: MarketsandMarkets (BESS USD 50.81→105.96bn, 15.8%); Mordor (APAC 49.85% 2025); SNE Research (US ESS 59→142 GWh); PS Market Research (cell-to-pack 26.8%); Grand View (prismatic cathode; ESS narrow scope); IndexBox (Korea data-center battery).

Form-factor / mix: StoreDot / Frost & Sullivan (prismatic ~40%→65% by 2030).

Trade / press: Seoulz; KED Global (EV credit cliff; LG ES utilization); The Elec; Electrek; Theguru; etoday; dailyinvest IR; BigGo; Digitimes; SEIA / P3 / GT Law (Korea ESS tenders).

COMPETITIVE STRUCTURE

TYCORUN (top-3 ~59%; Kedali ~51% cell-casing, narrow scope); Kedali FY24 report (RMB 12.03bn; ~29% structural-parts, broad scope); Shinheung SEC FY25 disclosure (₩408.2bn; OP ₩5.9bn; 2027E ₩610.7bn).

DART FILINGS (COMPANY AS MARKET EVIDENCE)

20260602000490 — corrected FY2025 Annual Report (2026-06-02): revenue / OP series; product-mix split; capacity & utilization; six-region geography; ~91% customer concentration; weekly-production-plan & 45-day lead-time; US-tariff tailwind.

20260515002324 — Q1-2026 report (2026-05-15).

PEERS NOT COLLECTED (GAP #4)

LT Precision (private, LT Group) — web-only; Dongwon Systems (KOSPI) — DART via orchestrator if a quantitative peer exhibit is escalated. Positioned qualitatively; no invented figures.

KRX

Near-unused by design. Series exist (ohlcv / short_balance / short_volume / universe) but were consulted only to confirm no listed-share-count change required cross-checking a DART capital event — not a valuation input (gap #8).

Methodology & data gaps

Lens. The market is the subject; Sangsin EDP is the analytical lens (~91% single-customer concentration makes it a near-pure read on the Samsung SDI casing sub-market). No valuation, multiple, price target, or bull / bear-as-thesis appears; company financials are cited only as market evidence. **Sizing.** Market sizes are kept as ranges where houses disagree; the narrow casing SAM (QYResearch family) spans a 6.6–29% CAGR and is shown as a fan, never reconciled. The lithium-ion TAM base year varies ~3.5× on scope (cell-only vs pack/system) and is kept as a range. The 4680 / 46-series segment (USD 8.5bn–650bn by 2030–32) is non-credible as a point and shown directionally only. **Recompute.** Every chart input was recomputed from the factbase: operating margins = OP ÷ revenue; the SAM fan compounds named house CAGRs from a USD 3.5bn 2024 anchor; peer scale normalized at ~₩1,375/USD. **Restatement (gap #1).** FY2024 uses the corrected series (rev ₩251.8bn / OP –₩8.2bn); the earlier line (₩245.1bn / –₩6.5bn) is not mixed in. **Company flags (gaps #6, #9).** Sangsin Indiana's FY2025 qualified audit opinion and the ceased Sangsin Hi-tech (Tianjin) battery operation are company facts, not market facts.

Glossary

Korean terms appear here only, to let readers match DART originals. Format: *Hangul (romanization)* — *English definition*.

각형 (gakhyeong) — prismatic; the rectangular hard-shell metal can. The market's growth core.

원형 (wonhyeong) — cylindrical / round; the legacy round metal can (18650 / 21700, and the emergent 46-series).

46파이 (46-pai) — 46-series / 4680-class large-cylindrical cell; the emergent round-CAN extension.

중대형 (jungdaehyeong) — mid-to-large (format), as in mid-large prismatic CAN for EV / ESS.

금형 (geumhyeong) — mold / tooling; part of the “other + mold” revenue line.

A사 (A-sa) — “Company A”; the anonymized single largest customer in the DART segment note (= Samsung SDI per public IR).

사업보고서 (saeop bogoseo) — Annual (Business) Report; the primary DART filing.

분기보고서 (bunggi bogoseo) — Quarterly Report.

상신이디피 (Sangsin EDP) — the lens company; KOSDAQ 091580.

신흥에스이씨 (Shinheung SEC) — Samsung SDI's Cap Assembly + CAN supplier; KOSDAQ 243840.

익산 (Iksan) — the company's Korean manufacturing base.

리튬이온전지 (lithium-ion jeonji) — lithium-ion battery; the cell the can houses.

SCOPE & DISCLAIMER

Scope & disclaimer. This is a **market-research study**, not investment advice. It contains no price target, valuation, multiple, or recommendation regarding any security, and no bull / bear thesis or investor positioning. The subject is the lithium-ion battery-can and structural-component market; Sangsin EDP (KOSDAQ 091580) is an analytical lens whose financials are cited **only as evidence of a market dynamic**. Market sizes are attributed to named third-party houses and preserved as ranges where they disagree; unverified or non-credible figures are labelled and not propagated as points. Company figures derive from public DART filings (rcept_no cited inline). KRX price / short-interest was near-unused by design. Readers must perform their own diligence. © 2026 Nathan Research Group — all rights reserved.