# China EV/ESS battery

## Five FAQs on demand, competition and CATL

**Equities**
Automobiles

**China**

- Slowing battery growth not the biggest concern – ESS demand visibility is the key swing factor
- The divergence between strong ESS sales and slower installations raises questions about demand sustainability
- CATL (Buy) is our preferred name: valuation is compelling, but a sustained re-rating needs greater conviction

**Yuqian Ding***
**Head of China Technology & Autos Research**
The Hongkong and Shanghai Banking Corporation Limited
yuqian.ding@hsbc.com.hk
+852 2288 5108

**Elaine Chen* (Reg. No. S1700524030001)**
**Analyst, China Autos**
HSBC Qianhai Securities Limited
elaine.chen@hsbcqh.com.cn
+86 010 5795 2364

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**1. Is battery demand losing momentum?** Not uniformly. EV battery growth is moderating from a high base, but remains supported by global electrification and higher battery content per vehicle. ESS is the bigger uncertainty. China's ESS battery sales grew 84% y-o-y in 8M26, led by 98% growth in domestic sales. Yet domestic ESS installations rose only 29%. Some lag between battery deliveries and project commissioning is normal, but the divergence raises questions about the timing and sustainability of underlying demand. Tender activity remains an important leading indicator, although execution and commissioning will be the ultimate tests. Expectations for slower ESS growth in 2027 are reasonable; suggestions of outright market contraction look premature.

**2. Are ESS capacity restrictions tightening supply?** Yes, gradually. Tightening of capacity approvals could improve industry utilisation and pricing discipline over time. The measures focus on unfilled capacity additions rather than existing facilities or ESS deployment. Given CATL's scale, high utilisation rate and committed capacity pipelines, we see limited near-term operational impact, with potential medium-term benefits from a more disciplined supply environment.

**3. Competition – is CATL losing its competitive edge?** Not yet. CATL's market share remains resilient despite second-sourcing efforts by OEMs. We see selective share losses and margin normalisation as temporary risks rather than a broad erosion of CATL's moat.

**4. Will battery tax policy changes put pressure on pricing?** Weaker demand is the bigger risk to pricing power. The export VAT rebate phase-out and consumption tax adjustment are known factors; the incremental risk is that softer downstream demand weakens battery makers' ability to pass on costs. Lithium carbonate prices have retreated, potentially cushioning the impact. Our focus is on contract pass-through, gross margins, and profit per GWh rather than headline ASP.

**5. Has CATL's correction gone too far?** At around 13x 2027e PE, the market is pricing in a tougher battery cycle, but we think CATL's competitive advantage remains largely intact. This underpins our preference for the stock. However, a low multiple alone might be insufficient to drive a sustained re-rating. We see three tests: earnings delivery against expectations, resilience in unit economics amid pricing pressure, and improving visibility on overseas EV and domestic ESS demand. We think fundamentals remain more resilient than sentiment suggests, but evidence of sustainable growth and returns is needed to unlock further upside.

**Less bull, more bite**
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This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, which forms part of it.

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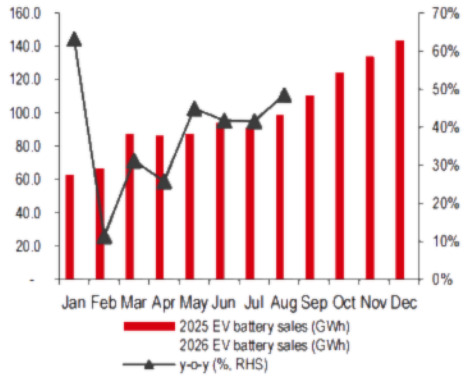
## Q1. Is battery demand losing momentum, and where is the key uncertainty?

**China remains the global battery demand barometer, but the debate is shifting from EV growth deceleration to ESS demand visibility.**

China battery makers supplied over 70% of global EV battery demand and more than 80% of global ESS battery demand in 2025, making China battery sales – including exports – a key indicator of global battery demand. ESS is also becoming increasingly important in the industry mix – it accounts for 32% of China's battery sales in 8M26, up from 26% in 2025.

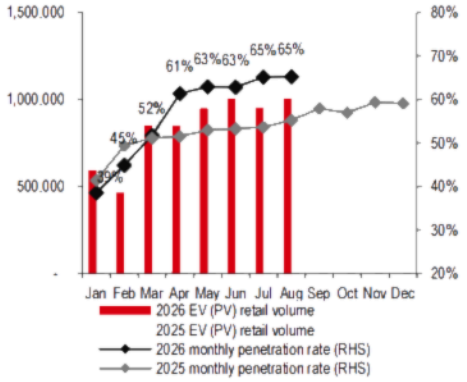
**EV battery growth is slowing, but remains solid.** With monthly EV penetration in China already above 65%, investors increasingly recognise that global EV battery growth is moderating from a high base. Weak domestic vehicle demand adds to the pressure, with China's EV retail sales declining 12% y-o-y in 8M26. Nevertheless, China's EV battery sales still grew 39% y-o-y over the same period, supported by continued electrification of commercial vehicles and rising battery capacity per vehicle (see *China EV/ESS battery: Fundamentals hold; 2Q earnings are the key*, 6 July 2026). We believe the deceleration in EV battery growth is largely understood by the market, making it a less incremental source of downside surprise.

**Exhibit 1. China EV battery sales volumes (incl. exports) booked +39% y-o-y in 8M26**




Source: CABIA, HSBC

**Exhibit 2. Domestic EV PC retails declined 12% y-o-y in 8M26, with Aug monthly EV penetration at 65%**




Source: CPCA, HSBC

**ESS is the key swing factor, with sales growth strong, but demand conversion under scrutiny.** China's ESS battery sales, including exports, rose 84% y-o-y in 8M26, according to CABIA, with exports up 42% and domestic sales 98%. However, domestic ESS installations in 8M26 were equivalent to only 21% of domestic battery sales, based on CABIA and CNESA data, down from 59% in 2025. This widening gap has become a major source of investor concern over underlying demand quality and the risk of inventory accumulation.

**The sales-installation gap partly reflects project timing, but execution risk should not be dismissed.** Battery revenue is generally recognised when projects are grid-connected. The period from shipment to grid connection can range from six months to two years, and longer for overseas projects. Recent tender wins may therefore take time to translate into installations. Some domestic projects have also been pushed into 2027 as details about provincial implementation under the national storage policy framework continue to roll out.

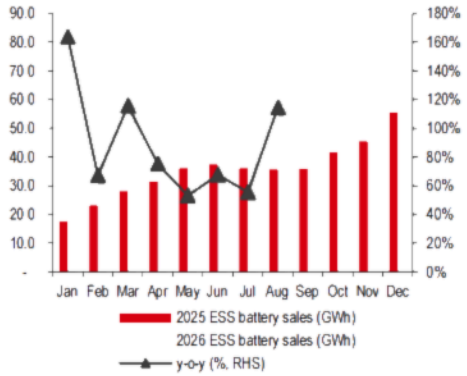
However, timing differences alone may not explain the entire gap. The pace of policy implementation, project execution and the risk of delays or cancellations in longer-cycle projects remain key uncertainties. ***Until these become clearer, concerns over domestic ESS absorption are likely to remain a recurring sector overhang.***

**Tender activity provides a more forward-looking read-through, albeit with signs of moderation.** We believe monthly tender activity is more useful for assessing forward domestic ESS demand than the sales-installation gap alone. Domestic ESS tenders grew 86% y-o-y in 8M26, although growth slowed to 15% y-o-y in September (CNESA data). A deceleration in domestic ESS growth in 2027 is already widely anticipated by market; ***we nevertheless view expectations of an outright market contraction as overly pessimistic at this stage, pending further evidence.***

**Lower lithium prices could also improve ESS project economics and unlock additional applications.** The key question is, therefore, not whether ESS growth will slow, but whether tender activity can translate into actual project execution and sustained battery demand.

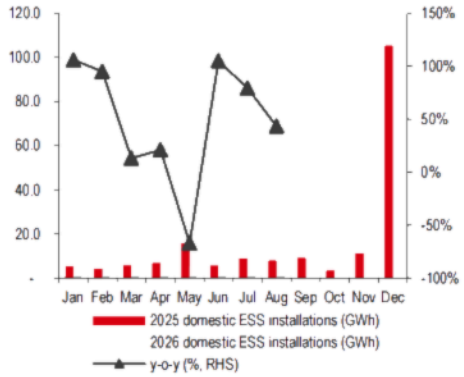
**What to watch:** Monthly ESS tender growth, domestic installations, project delays and cancellations, and the timing of policy implementation. A sustained improvement in installation conversion would be a more meaningful catalyst than strong battery sales alone.

**Exhibit 3. China ESS battery sales volumes (incl. exports) booked +84% y-o-y in 8M26**



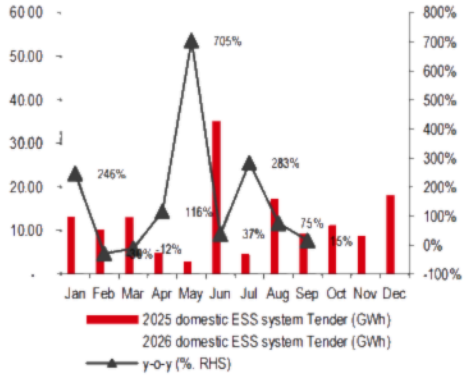

Source: CABIA, HSBC

**Exhibit 4. Domestic ESS installation rose 29% y-o-y in 8M26**



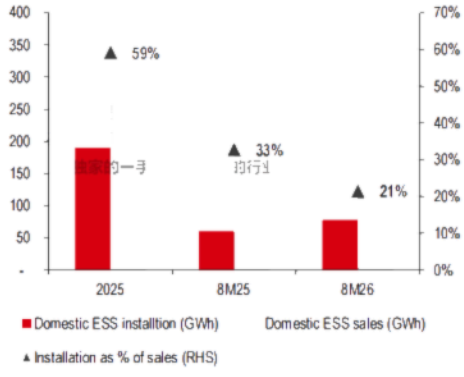

Source: CNESA, HSBC

**Exhibit 5. Domestic ESS system tender booked 15% y-o-y in Sept 2026**




Source: CNESA, HSBC

**Exhibit 6. Domestic ESS installations in 8M26 were equivalent to only 21% of domestic battery sales**




Source: CABIA, CNESA, HSBC

## Q2. Are China's ESS capacity restrictions tightening supply, and what would this mean for CATL?

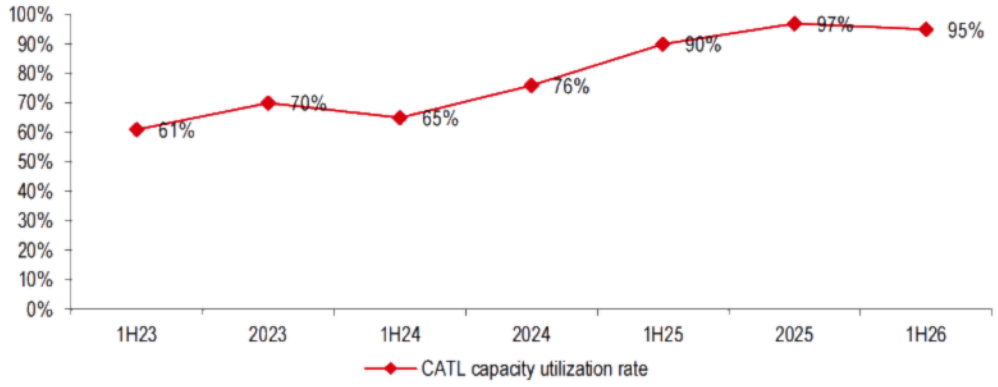
**Capacity discipline is tightening gradually rather than through a blanket ban on ESS expansion.**

The policy direction is not new. It can be traced back to late 2025, when MIIT convened industry meetings and called for action against irrational competition in the battery sector, including concerns over potential overcapacity. From mid-2026 through 3Q26, industry feedback suggests that the focus has shifted towards more concrete checks on ESS capacity utilisation and tighter scrutiny of filings for incremental capacity.

**The measures appear aimed primarily at curbing new, unfilled capacity, not restricting ESS deployment.** Existing facilities and projects already approved or under construction appear less directly affected, although implementation may vary by project. The policy intent is to prevent further overcapacity and price-driven expansion, rather than slow the development of energy storage itself.

**For CATL, the near-term capacity impact looks limited, with potential upside to industry economics.** Given CATL's existing capacity base, committed expansion pipeline, and high utilisation, we see little evidence of an immediate capacity constraint. If tighter scrutiny curbs marginal supply additions, it could gradually improve industry utilisation and pricing discipline, particularly in lower-end segments where competition has been most aggressive.

**Exhibit 7. CATL's capacity utilisation rate has remained at a high level**

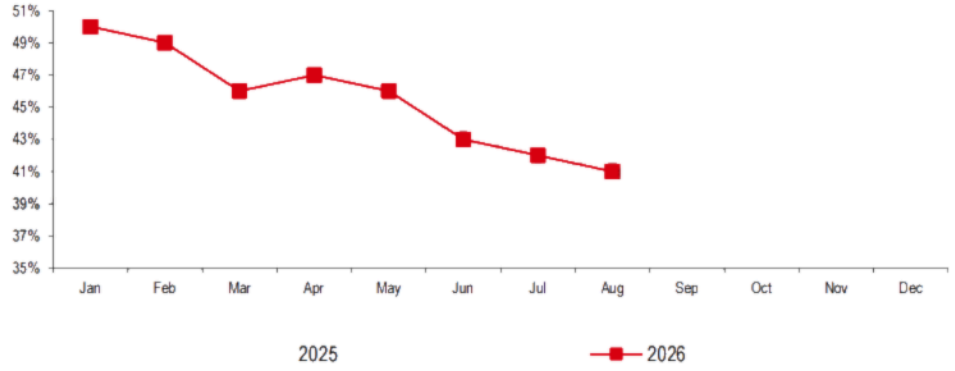



Source: Company data, HSBC

## Q3. Are domestic competition and overseas policy risks undermining CATL's competitive position?

**De-CATLisation remains more a bargaining strategy than a proven structural shift.** Despite recurring concerns over customer diversification, CATL's domestic EV battery market share rose to 44.6% in 8M26 from 43% in 2025. Its overseas EV battery share stood at 34% in 7M26, versus 30% in 2025. Current market-share data do not yet point to structural erosion of CATL's competitive position.

**Exhibit 8. CATL's 8M26 domestic EV battery MS was 45% vs 43% in 2025**




Source: CABIA, HSBC

**China: Second sourcing is real, but lasting displacement is unproven**

**We see selective share losses and margin normalisation as more temporary risks than a broad erosion of CATL's moat.** When demand visibility weakens, OEMs naturally intensify cost-cutting efforts and explore alternative suppliers to strengthen bargaining power. This is most evident in mature, price-sensitive models, where second- and third-tier suppliers can compete more aggressively.

The risk to CATL's domestic share and pricing is genuine, but second-sourcing does not automatically translate into a lasting shift away from CATL. Winning a programme is one thing; delivering at scale with consistent quality, high manufacturing yields and competitive technology is another.

CATL's scale, execution, technology and breadth of customer relationships remain meaningful advantages, particularly in higher-end platforms and technically demanding programmes. A more bearish conclusion would require evidence that competitors can consistently win high-value programmes while matching CATL's quality, delivery and cost economics.

**Europe: Limited direct trade risk; LFP remains a structural advantage**

**Potential EU restrictions on Chinese-made PHEVs pose limited direct risk to CATL.** More than 60% of CATL-equipped vehicles currently sold in Europe are locally produced (Rho-motion data), while imported PHEVs account for less than 10%. Even if restrictions were tightened, the direct impact on CATL would likely be more contained than on the affected OEMs.

**Exhibit 9. More than 60% of CATL-equipped vehicles currently sold in Europe are locally produced**

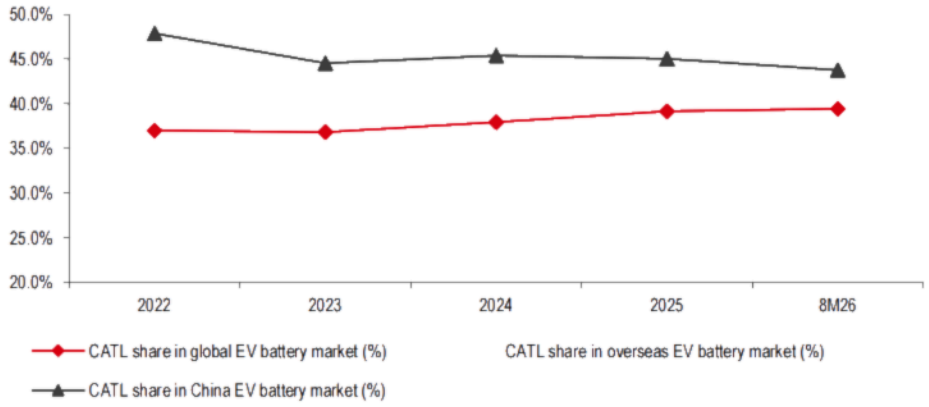
| | 7M26 | 2025 |
|---|---|---|
| **CATL Europe exposure as of total EV battery installation** | **20%** | **17%** |
| **Amid which** | | |
| - Europe produced BEV | 60% | 63% |
| - Europe produced PHEV | 3% | 4% |
| - Europe imported BEV | 34% | 31% |
| - Europe imported PHEV | 4% | 1% |
| **Total** | **100%** | **100%** |

Source: Rho Motion, HSBC

More importantly, European OEMs increasingly rely on Chinese suppliers for cost-competitive LFP batteries, including for locally manufactured vehicles. As automakers push towards more affordable EVs, LFP's cost advantage should remain relevant. Korean battery makers remain more heavily focused on ternary/NCM chemistry, while much of their recent LFP expansion and capital allocation has been directed towards the US market. We therefore see limited scope for material near-term displacement of CATL in Europe.

CATL's global competitive position remains defensible, but its moat does not insulate it from pricing pressure. The key question is not whether OEMs will diversify sourcing – they will – but whether alternative suppliers can convert tactical share gains into sustainable, through-cycle competitiveness.

**Exhibit 10. CATL's 8M26 global EV battery MS was 39.4% vs 39.1% in 2025**




Source: SNE Research, HSBC

## Q4. Will battery tax policy changes put pressure on pricing?

**Weaker downstream demand is the key risk to pricing power, while lower lithium costs could cushion the impact of policy changes.**

The battery export VAT rebate phase-out was announced in January 2026, while the consumption tax adjustment was announced in July. Neither is new information. The latest EV export VAT rebate cut, announced on 12 October and effective from April 2027, might further squeeze OEM margins and strengthen their incentive to push back on battery price increases.

**Exhibit 11. China battery tax-related policy changes**

| | Timeline | | |
|---|---|---|---|
| | Original | Since 1 April 2026 | Since 1 Jan 2027 |
| China Battery export VAT rebate phase-out – announced in Jan 2026 | 9% | 6% | 0% |
| | Original | Since 1 Sept 2026 | Since 1 Sept 2027 |
| China Battery consumption tax adjustment – announced in July 2026 | tax free | 2% | 4% |

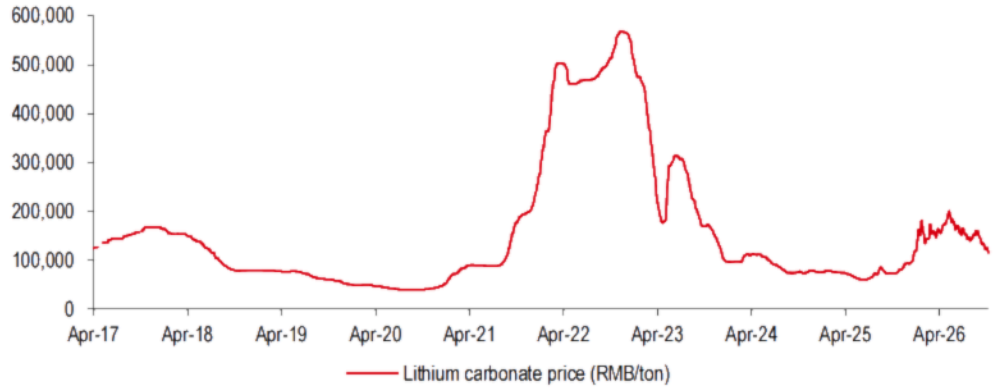
Source: MIIT, HSBC

The key question is, therefore, not simply the headline cost impact of these policies, but whether weaker downstream demand undermines battery makers' bargaining power with OEMs and ESS customers. Even if the direct cost burden is manageable, a softer demand environment could make contract negotiations more difficult and limit the ability to pass through policy-related costs.

**Lower lithium prices provide a partial offset.** Historically, battery contracts have incorporated raw-material pass-through mechanisms. As a result, lower lithium prices can reduce reported battery ASPs without a necessary proportionate decline in profit per GWh. Lithium carbonate prices have recently retreated to around RMB115k/t, versus a peak of RMB190k/t in 1H26. We believe the lower cost base could partly offset the impact of export rebate changes, meaning the overall pricing environment in 4Q26 and 2027 is not necessarily more challenging than in 1H26.

That said, the benefit depends on contract structures, renewal timing and competitive dynamics. Lower input costs do not automatically translate into higher margins if battery makers are required to share the savings with customers. Conversely, headline ASP declines should not be interpreted as margin deterioration without examining the corresponding movement in raw-material costs.

**Exhibit 12. Lithium carbonate prices have recently retreated to around RMB115k/t, down from a peak of RMB190k/t in 1H26**




Source: Wind, HSBC

**For CATL, realised pass-through matters more than headline ASPs.** We monitor three indicators: **1) Contract renewals:** Whether policy-related costs are successfully passed through to OEMs and ESS customers. **2) Gross margins:** Whether lower lithium costs offset pricing pressure and any less favourable sales mix. **3) Profit per GWh:** Whether unit economics remain resilient despite potential ASP declines and selective market-share trade-offs.

A higher domestic sales mix could also weigh modestly on margins, as seen in 2Q26. Overall, we believe the combination of lower lithium costs and established pass-through mechanisms provides a cushion, but not a guarantee, against weaker downstream bargaining conditions.

## Q5. Investment implications: Has CATL's correction gone too far?

**Valuation is attractive, but a sustained re-rating requires greater confidence in the earnings outlook** (see *CATL: Fundamentals on track, sentiment yet to catch up*, 8 September 2026).

At around 13x 2027e PE, CATL's valuation appears increasingly attractive even based on a more bearish consensus, which assumes 20% earnings growth next year. We believe the market is pricing in a tougher battery cycle, while CATL's scale, technology and competitive position remain largely intact. This underpins our continued preference for the stock.

The next catalyst is likely to be greater visibility, rather than valuation alone. Near-term earnings resilience could support a share-price recovery, but sustained re-rating requires evidence of three things: improving ESS demand conversion, resilient profit per GWh despite pricing pressure, and continued growth in overseas markets. Until then, CATL may remain fundamentally attractive without an immediate catalyst for multiple expansion.

| | | Valuation | Risks |
|---|---|---|---|
| **CATL**<br>**300750 CH**<br>**3750 HK**<br><br>**A/H: Buy/Buy** | Current price:<br>RMB298.38<br>HKD494.80<br><br>Target price:<br>RMB538.00<br>HKD783.00<br><br>Upside:<br>+80%/+58% | We continue to use a DCF model to value CATL shares, with unchanged assumptions including a risk-free rate of 4.25%, a China stock market premium of 4.75%, a WACC of 5.7%, with a beta of 0.88, and a perpetual growth rate of 2.5% (all unchanged). Our A-share target price of RMB538.00 (unchanged) implies 80% upside; accordingly, we maintain our Buy rating on the stock. By applying an end-2026 RMB-HKD FX rate of 1.17 (unchanged) and an H-to-A-share premium of 25% (unchanged), we derive our H-share target price of HKD783.00 (unchanged). Our H-share target price implies c58% upside, and we maintain our Buy rating on the stock. | **Downside risks:** Worse-than-expected raw materials price hikes and pass-through; ASP and margin pressure after the launch of the rebate programme; potentially less favourable regulatory environment in overseas markets; weaker-than expected execution of CATL's overseas expansion and unfavourable overseas tariff policies; lower-than-expected EV/ESS market growth and market share wins; potential quality/IP disputes (especially in the global market). |

**Elaine Chen*** | elaine.chen@hsbcqh.com.cn | +86 010 5795 2364

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