

## Global Energy Storage

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# Battery Weekly 30 April

### America

- [Tesla unveils its first mass-produced electric truck.- electrive.com](#) Tesla has begun high-volume production of its Semi electric truck at Gigafactory Nevada, with commercial rollout expected in 2026. Offering up to 500 miles range and priced from \$260K–\$290K, the Semi aims to become a cost-competitive option in the US heavy-duty truck market.

### Asia

- [CATL secures world's largest sodium-ion battery order in major tech shift.- cnevpost.com](#) CATL has signed a 60 GWh, 3-year supply deal with energy storage firm HyperStrong, marking the largest sodium-ion battery order to date and a key milestone in commercialization. Beyond storage, CATL is accelerating adoption in EVs, including a mass-produced sodium-ion vehicle launching in 2026.
- [BYD's iconic Han EV gets major upgrade with second-gen Blade Battery and flash charging.- cnevpost.com](#) BYD has launched the upgraded Han EV Flash Charging Edition, starting at ¥179,800 (\$26K), featuring its second-generation Blade Battery and ultra-fast charging technology. The sedan can charge from 10% to 97% in 9 minutes (or about 5 minutes for most charge) and maintains strong performance even at -30°C. It offers up to 705 km range with a 69 kWh battery, supported by over 5,500 fast-charging stations across China.
- [Nio's battery operator Mirattery expands financing with 1 billion yuan green ABN.- cnevpost.com](#) Nio's battery asset unit Mirattery has issued ¥1 billion (\$146M) in green asset-backed medium-term notes (ABN), its second such issuance in 2026, to fund battery asset operations and innovation. The offering includes multiple tranches with rates from 2.0% to 5.5%, reflecting strong investor demand and lowering financing costs. Total similar issuances have now reached ¥4 billion, supporting Nio's battery-as-a-service (BaaS) model, which serves over 610,000 users.
- [Chinese Battery Equipment Gains Ground in Korea as SK On Orders Stacking Tool.- thelec.net](#) SK On has ordered stacking equipment from China's Yinghe Technology, marking deeper penetration of Chinese machinery into South Korea's battery supply chain. The shift is driven by cost advantages and improving technology, with Chinese suppliers already supporting LG Energy Solution and Samsung SDI. The new system integrates notching and stacking to boost efficiency and energy density, though large-scale adoption remains under evaluation.
- [A first for South Korea: Hyundai trials battery subscription model.- elective.com](#) Hyundai has launched a pilot battery subscription program in South Korea, starting with Ioniq 5 taxis, allowing users to pay a monthly fee and swap batteries instead of owning them. The trial separates battery and vehicle ownership, aiming to reduce upfront EV costs and address battery lifespan concerns, with plans to expand to private consumers.
- [CATL batteries to power Hyundai's EREV, hybrid push in China.- Korea joongang daily.](#) CATL will supply batteries for Hyundai's EV, PHEV, and EREV models, deepening their partnership as Hyundai targets global expansion. The collaboration includes vehicles for China and overseas markets, with Hyundai planning 20 new models in China and aiming for 500,000 annual sales by 2030. CATL is also strengthening global cooperation through partnerships and technology licensing, while continuing to advance fast-charging and next-generation battery technologies.

### Europe

- [Cubenergy Commissions 40MW/120MWh BESS Project in Czech Republic.- solarbe.com](#) Cubenergy, a Chinese energy storage provider, has deployed and commissioned a 40MW/120MWh battery energy storage system (BESS) in the Czech Republic to support grid stability and energy security. The project uses Cubenergy's FlexCombo system, integrated with on-site solar PV to enable long-duration energy shifting and improve renewable energy utilization.
- [Max Planck researchers explain dendrite formation in solid-state batteries.- electrive.com](#) Researchers at the Max Planck Institute have uncovered how lithium dendrites form and penetrate solid electrolytes, causing short circuits in solid-state batteries. Their study shows dendrite growth is driven by mechanical stress and electron leakage, rather than lithium accumulating at the tip.
- [LG Energy set to ink \\$7B battery supply deal with BMW.- korea joongang daily](#) LG Energy Solution is close to finalizing a ~\$7.3 billion (₩10 trillion), 10-year battery supply agreement with BMW, marking one of the largest EV battery deals in the sector. The company will supply next-generation 46-series cylindrical batteries for BMW's upcoming EV platform, with production primarily from its Arizona plant and potential expansion in Europe. The deal supports LG Energy's growing order pipeline, now exceeding 440 GWh, and strengthens its position despite recent headwinds, including a Q1 operating loss of ₩207.8 billion and slowing global EV demand.

EXHIBIT 1: **Key commodities price performance**

|  | Price<br>30-Apr | Ccy | Mkt cap<br>\$bn | P/E<br>26E | EV<br>/EBITDA<br>26E | %1D   | %1W | %1M | %1Y  | 1Y px<br>chart |
|--|-----------------|-----|-----------------|------------|----------------------|-------|-----|-----|------|----------------|
| <b>Metal prices (US\$/tonne)</b>         |                 |     |                 |            |                      |       |     |     |      |                |
| LiCO (spot)                              | 25,222          |     |                 |            |                      | 0.6%  | 2%  | 10% | 173% |                |
| LiOH (spot)                              | 24,345          |     |                 |            |                      | 0.6%  | 4%  | 6%  | 166% |                |
| LiCO (contract)                          | 18,748          |     |                 |            |                      | 0.0%  | 9%  | 21% | 87%  |                |
| LiOH (contract)                          | 18,550          |     |                 |            |                      | 0.0%  | 2%  | 0%  | 110% |                |
| Cobalt (spot)                            | 55,850          |     |                 |            |                      | 0.0%  | 0%  | 0%  | 68%  |                |
| Nickel (spot)                            | 19,272          |     |                 |            |                      | -0.9% | 3%  | 12% | 25%  |                |
| <b>Component prices</b>                  |                 |     |                 |            |                      |       |     |     |      |                |
| Cathode NMC811                           |                 |     |                 |            |                      | 0.6%  | 1%  | 2%  | 46%  |                |
| Cathode LFP                              |                 |     |                 |            |                      | 1.2%  | 2%  | 11% | 79%  |                |
| Precursor NMC811                         |                 |     |                 |            |                      | 0.4%  | 3%  | 3%  | 38%  |                |
| Precursor LFP                            |                 |     |                 |            |                      | 0.4%  | 3%  | 8%  | 24%  |                |
| Artificial Graphite                      |                 |     |                 |            |                      | 0.0%  | 0%  | 0%  | 2%   |                |
| Natural Graphite                         |                 |     |                 |            |                      | 0.0%  | 0%  | 0%  | -6%  |                |
| Electrolyte NMC                          |                 |     |                 |            |                      | 0.0%  | 0%  | -3% | 20%  |                |
| Electrolyte LFP                          |                 |     |                 |            |                      | 0.0%  | 0%  | -6% | 41%  |                |
| Separator                                |                 |     |                 |            |                      | 0.0%  | 0%  | 0%  | 5%   |                |
| <b>Spot battery cell cost (US\$/kWh)</b> |                 |     |                 |            |                      |       |     |     |      |                |
| LFP                                      | 62              |     |                 |            |                      | 0.3%  | 0%  | 2%  | 17%  |                |
| NMC532                                   | 88              |     |                 |            |                      | 0.3%  | 0%  | 1%  | 26%  |                |
| NMC622                                   | 87              |     |                 |            |                      | 0.5%  | 0%  | 1%  | 23%  |                |
| NMC811                                   | 87              |     |                 |            |                      | 0.3%  | 0%  | 1%  | 22%  |                |
| <b>Spot battery pack cost (US\$/kWh)</b> |                 |     |                 |            |                      |       |     |     |      |                |
| LFP                                      | 77              |     |                 |            |                      | 0.3%  | 0%  | 3%  | 3%   |                |
| NMC532                                   | 120             |     |                 |            |                      | 0.2%  | 0%  | 1%  | 18%  |                |
| NMC622                                   | 120             |     |                 |            |                      | 0.3%  | 0%  | 1%  | 16%  |                |
| NMC811                                   | 119             |     |                 |            |                      | 0.2%  | 0%  | 1%  | 15%  |                |

Source: Bloomberg, Baiinfo, Bernstein analysis and estimates (cell and pack cost)

## EXHIBIT 2: Key companies price performance and valuation

|                                | Price<br>30-Apr | Ccy | Mkt cap<br>\$bn | P/E<br>26E | EV<br>/EBITDA<br>26E | %1D   | %1W  | %1M | %1Y  | 1Y px<br>chart |
|--------------------------------|-----------------|-----|-----------------|------------|----------------------|-------|------|-----|------|----------------|
| <b>Cell makers</b>             |                 |     |                 |            |                      |       |      |     |      |                |
| LGES                           | 463,500         | KRW | 73.5            | 323.9x     | 18.6x                | -2.0% | 0%   | 13% | 43%  |                |
| Samsung SDI                    | 701,000         | KRW | 38.3            | 207.5x     | 24.4x                | -2.1% | 11%  | 69% | 298% |                |
| CATL                           | 436.0           | CNY | 293.6           | 20.9x      | 14.3x                | -2.0% | -1%  | 6%  | 88%  |                |
| CALB                           | 35.4            | HKD | 8.7             | 21.4x      | 6.2x                 | -3.0% | 2%   | 8%  | 116% |                |
| EVE Energy                     | 72.6            | CNY | 22.9            | 21.1x      | 13.7x                | -2.0% | 1%   | 5%  | 77%  |                |
| Gotion                         | 36.7            | CNY | 9.8             | 28.4x      | 9.1x                 | -2.7% | -8%  | -1% | 78%  |                |
| Sunwoda                        | 27.4            | CNY | 7.4             | 18.6x      | 7.5x                 | -1.2% | -6%  | 3%  | 44%  |                |
| Farasis                        | 13.9            | CNY | 2.5             | n.a.       | n.a.                 | -1.3% | 2%   | 2%  | 14%  |                |
| <b>Lithium Miners/Refiners</b> |                 |     |                 |            |                      |       |      |     |      |                |
| Albemarle                      | 190.9           | USD | 22.5            | 21.8x      | 9.7x                 | 2.1%  | -1%  | 8%  | 226% |                |
| SQM                            | 91.0            | USD | 24.1            | 16.1x      | 7.7x                 | 1.8%  | 7%   | 12% | 166% |                |
| Pilbara Minerals               | 6.0             | AUD | 13.9            | 36.0x      | 18.4x                | 0.7%  | 6%   | 14% | 300% |                |
| Ganfeng Lithium                | 83.3            | HKD | 26.1            | 26.7x      | 18.5x                | -0.8% | 11%  | 12% | 340% |                |
| Tianqi Lithium                 | 80.0            | CNY | 19.3            | 27.1x      | 7.9x                 | 6.0%  | 18%  | 40% | 178% |                |
| <b>Cathode</b>                 |                 |     |                 |            |                      |       |      |     |      |                |
| LG Chem                        | 397,500         | KRW | 19.0            | #N/A N/A   | 3.6x                 | -2.7% | 1%   | 23% | 84%  |                |
| EcoPro BM                      | 206,500         | KRW | 13.7            | 413.7x     | 76.8x                | -3.1% | 0%   | 1%  | 103% |                |
| L&F                            | 199,500         | KRW | 5.5             | 252.0x     | 36.4x                | -4.1% | 6%   | 27% | 208% |                |
| Umicore                        | 16.9            | EUR | 4.9             | 11.7x      | 4.7x                 | -0.9% | -1%  | 5%  | 111% |                |
| Ningbo Ronbay                  | 34.8            | CNY | 3.6             | 49.0x      | 16.8x                | -9.5% | 5%   | 17% | 74%  |                |
| Beijing Easpring               | 63.4            | CNY | 5.1             | 32.3x      | 20.4x                | -2.4% | 8%   | 18% | 68%  |                |
| GEM                            | 9.1             | CNY | 6.8             | 22.4x      | 7.0x                 | -5.2% | 10%  | 13% | 49%  |                |
| Huayou Cobalt                  | 66.6            | CNY | 18.5            | 14.6x      | 6.8x                 | -1.6% | 7%   | 11% | 97%  |                |
| Dynanonic                      | 72.0            | CNY | 3.0             | 72.7x      | 17.5x                | 12.9% | 44%  | 55% | 157% |                |
| <b>Anode</b>                   |                 |     |                 |            |                      |       |      |     |      |                |
| Posco                          | 253,000         | KRW | 15.3            | 539.6x     | 63.9x                | -2.9% | 3%   | 16% | 109% |                |
| Putailai                       | 36.3            | CNY | 11.3            | 23.4x      | 14.7x                | -3.6% | 5%   | 8%  | 116% |                |
| Shanshan                       | 16.7            | CNY | 5.5             | n.a.       | n.a.                 | -1.5% | 11%  | 21% | 138% |                |
| <b>Separator</b>               |                 |     |                 |            |                      |       |      |     |      |                |
| Asahi Kasei                    | 1,535           | JPY | 13.3            | 14.4x      | 5.3x                 | -0.5% | 1%   | 2%  | 54%  |                |
| SK IE                          | 26,450          | KRW | 1.5             | n.a.       | -205.5x              | -1.9% | -1%  | 19% | 18%  |                |
| Toray Industries               | 1,121           | JPY | 10.7            | 20.7x      | 6.4x                 | -1.7% | 1%   | 2%  | 23%  |                |
| W-Scope                        | 228             | JPY | 0.1             | n.a.       | n.a.                 | 1.8%  | 0%   | 3%  | -8%  |                |
| Yunnan Energy                  | 83.0            | CNY | 11.9            | 47.7x      | 17.1x                | -1.8% | 18%  | 12% | 199% |                |
| Shenzhen Senior                | 16.4            | CNY | 3.2             | 36.8x      | 11.1x                | -1.4% | 7%   | 7%  | 81%  |                |
| Sinoma Science                 | 55.2            | CNY | 13.6            | 34.2x      | 13.7x                | -3.0% | 4%   | 35% | 301% |                |
| <b>Electrolyte</b>             |                 |     |                 |            |                      |       |      |     |      |                |
| Enchem                         | 43,700          | KRW | 0.7             | n.a.       | n.a.                 | -6.9% | -12% | 7%  | -45% |                |
| Tinci Minerals                 | 60.5            | CNY | 18.1            | 19.3x      | 12.8x                | 2.0%  | 22%  | 26% | 246% |                |
| Capchem                        | 69.1            | CNY | 7.6             | 26.5x      | 16.5x                | -2.6% | 11%  | 17% | 118% |                |
| Jiangsu Guotai                 | 9.0             | CNY | 2.1             | 10.8x      | n.a.                 | -9.3% | -6%  | -4% | 25%  |                |
| Shanshan                       | 16.7            | CNY | 5.5             | n.a.       | n.a.                 | -1.5% | 11%  | 21% | 138% |                |
| <b>Equipment Maker</b>         |                 |     |                 |            |                      |       |      |     |      |                |
| Hirano                         | 1,784           | JPY | 0.2             | 16.9x      | n.a.                 | 0.6%  | 2%   | 6%  | 13%  |                |
| CKD                            | 6,040           | JPY | 2.6             | 32.4x      | 17.0x                | 2.9%  | 10%  | 42% | 190% |                |
| Wuxi Lead                      | 55.2            | CNY | 13.5            | 37.1x      | 29.5x                | -1.1% | -3%  | 12% | 177% |                |
| Shenzhen Yinghe                | 29.0            | CNY | 2.7             | 30.7x      | 14.9x                | 0.5%  | 3%   | 7%  | 76%  |                |
| Zhejiang HangKe                | 31.9            | CNY | 2.8             | 31.5x      | 29.9x                | -0.1% | 5%   | 19% | 87%  |                |
| Guangdong Lyric                | 54.1            | CNY | 1.3             | 58.5x      | 20.6x                | -2.4% | 1%   | 9%  | 100% |                |
| Shenzhen United                | 28.7            | CNY | 1.4             | 24.1x      | 15.7x                | 6.8%  | 1%   | 18% | 81%  |                |

Source: Bloomberg (all estimates), Bernstein analysis

## Company Models

[CATL](#) | [LG Energy Solution](#) | [Samsung SDI](#)

[LG Chem](#) | [EcoPro BM](#) | [Posco Future M](#)

[Tianqi Lithium](#)

[Sungrow](#)

## **Industry Models**

[Model: Monthly EV Tracker](#)

[Model: Battery Gigafactory Database](#)

[Industry model: Global EV TAM](#)

[Industry model: Global ESS TAM](#)

[Industry model: Battery TAM](#)

[Industry model: Battery supply and demand](#)

## **Blackbook**

[Battery Utopia](#)

[Battery Tech Roadmap 2023: Faster, Higher, Stronger](#)

[Turn Up the Voltage... Investing Across the Battery Value Chain](#)

[Global Energy Storage: Resistance is Futile](#)

## **Initiation Report**

[Global Energy Storage: Initiating Coverage. Lithium Positive \(Tianqi\) and Negative Cathodes \(EcoPro BM, Posco Future M\)](#)

[Sungrow: Solar Eclipse - Initiating at Market-Perform \(PT RMB65\)](#)

## **Recent Research**

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[Quick Take: LG Energy Solution 1Q26 - ESS drives the top line, but margins still a problem](#)

[Samsung SDI 1Q26 - Raising target price as battery growth and losses narrow](#)

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[Global Energy Storage: 2025 Lithium Outlook. Rising from rock bottom](#)

[Global Energy Storage: Outlook 2025. New markets to drive battery growth](#)

## BERNSTEIN TICKER TABLE

## DISCLOSURE APPENDIX

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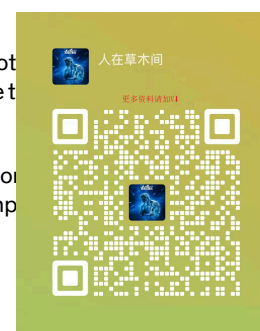
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