Clagora Analytics

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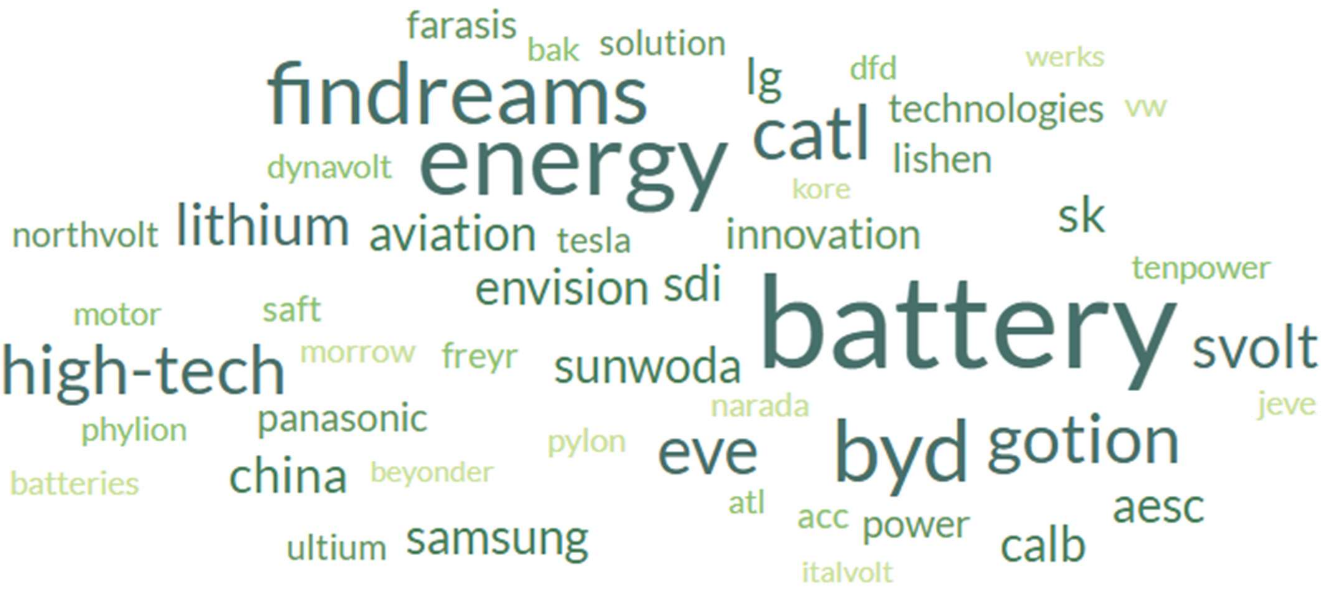

The newsletter focuses on key areas significant to battery value chain

Contents

Raw materials

1. Ark Energy Secures Approval for 435 MW Richmond Valley Solar Farm

Ark Energy has received planning approval from the NSW Government for the solar component of its 435 MW (500 MW dc) Richmond Valley hybrid project. The development will include a 475 MW / 2,200 MWh lithium-iron-phosphate battery energy storage system, providing up to eight hours of storage. With an estimated investment of AUD 1.2 billion, the project marks a major boost for Australia's renewable energy transition. Located in the Northern Rivers region of New South Wales, it has been listed as a national infrastructure priority. Once operational, the facility will power around 175,000 homes. Ark Energy CEO Michael Choi highlighted the milestone and reaffirmed commitment to community engagement. NSW Planning Minister Paul Scully noted that the project's storage capability will strengthen grid reliability. A final decision from the federal Department of Climate Change, Energy, the Environment and Water is pending. Construction will be led by Elecnor Australia under an early contractor involvement agreement, covering engineering and design. The project further cements Australia's growing hybrid renewable energy capacity.

https://arkenergy.com.au/news/2025/10/16/418-project-secures-state-approval/

2. Sigma Lithium Upgrades Mining Operations to Boost Efficiency

Sigma Lithium Corporation has announced a major upgrade to its Grota do Cirilo mining operations in Brazil to enhance efficiency and reduce costs. The initiative follows productivity improvements at its Greentech industrial plant and is expected to lower plant-gate costs by about 20 percent. Since mining accounts for over two-thirds of these costs, the company aims to improve ore delivery cadence, stability, and safety. The upgrade includes new, larger mining trucks to streamline operations, cut fleet size, and reduce site traffic. Originally planned for Phase 2, the enhancements have been accelerated into the third quarter of 2025 in response to lower lithium prices. The program also aligns mining safety standards with the industrial plant, which has operated for over 735 days without a Lost Time Injury. Improved mine geometry and feed consistency will support higher production ahead of Sigma's second Greentech plant, due in 2026. The upgrades strengthen Sigma's commitment to sustainable "Quintuple Zero" lithium production, using renewable energy and zero hazardous chemicals. This proactive move keeps the company competitive amid global market volatility.

https://ir.sigmalithiumcorp.com/news-releases/news-release-details/sigma-lithium-recognized-sustainability-excellence-itausaarapyau

3. Azimut Confirms High-Grade Lithium Discovery at Wabamisk East, Québec

Azimut Exploration Inc. has confirmed a major high-grade lithium pegmatite discovery at its Wabamisk East Property in Québec's James Bay region. The company identified over 86 spodumene-bearing outcrops, with 109 grab samples collected showing 29 samples above 2.0% Li_2O and a peak grade of 6.93% Li_2O. The surface mineralized area extends over 4 km^2 across four target sectors and remains open in all directions. Pegmatite bodies up to 50 meters thick were observed cutting mafic metavolcanic rocks, with coarse spodumene crystals reaching 0.5 meters. The project operates under an option agreement with Rio Tinto Exploration Canada, which can earn up to a 70% interest by funding CAD 85 million in exploration. Azimut will lead as operator during the initial phase. The discovery paves the way for a drill program planned for early 2026. Located near infrastructure in a proven lithium district, Wabamisk East represents strong exploration potential. While grab samples are selective, results indicate a significant new lithium zone in the James Bay region.

https://azimut-exploration.com/news/azimut-confirms-extensive-high-grade-lithium-surface-discovery-on-wabamisk-east-property-james-bay-region-quebec/

4. $250 Million Plan to Extract Lithium from Utah's Great Salt Lake

A $250 million project has been launched to extract lithium from Utah's Great Salt Lake using innovative direct lithium extraction (DLE) technology developed by Lilac Solutions. The process is designed to be faster, less water-intensive, and more environmentally friendly than traditional evaporation pond methods. The initiative aims to strengthen the U.S. domestic supply of battery-grade lithium, reducing reliance on foreign imports. By using a smaller land footprint and minimal fresh water, the project addresses environmental concerns associated with brine extraction. With demand for lithium-ion batteries soaring for electric vehicles and grid storage, this venture could significantly boost U.S. energy independence. The Great Salt Lake's existing infrastructure and brine composition make it ideal for lithium recovery. The project also reflects growing investor confidence in sustainable extraction methods. However, success depends on regulatory approvals and scaling technology for commercial output. If successful, it could transform America's lithium supply chain and bolster the clean energy transition.

https://www.forbes.com/sites/alanohnsman/2025/10/10/a-250-million-plan-to-pull-lithium-for-batteries-from-the-great-salt-lake/

5. Hithium Prepares Resubmission for Hong Kong IPO

Chinese lithium-ion battery manufacturer Hithium is preparing to resubmit its IPO application to the Hong Kong Stock Exchange after its initial filing lapsed in September. The lapse occurred due to regulatory time limits rather than withdrawal, and the company confirmed that its listing plans remain on track. Hithium expects to update its documentation and complete the resubmission soon, targeting a listing before the end of the year. The company reported strong 2024 financials, with revenue rising 26% to CNY 12.9 billion and net profit more than doubling to CNY 4.67 billion. The IPO aims to raise international capital, boost transparency, and attract global investors. Hithium is also expanding overseas, with a new manufacturing facility in Texas and a major supply deal with Saudi Electricity Co. worth about CNY 2.6 billion. However, the firm faces a lawsuit from rival CATL alleging patent infringement and unfair competition. Hithium has stated that operations remain unaffected and the IPO timeline unchanged. The move underscores its ambition to strengthen global presence and financial resilience.

https://www.energy-storage.news/hithium-actively-preparing-resubmission-for-hong-kong-ipo/

6. Arverne Strengthens Control of Lithium de France and Welcomes New Shareholder

Arverne Group has executed a strategic transaction to bolster its ownership of its subsidiary Lithium de France SAS by acquiring all 474,753 of its shares from Hydro Energy Invest AS. In exchange, Arverne issued 2,232,288 new shares valued at €22.32 million to Hydro, who thereby becomes a shareholder with approximately 5.31 % of Arverne's capital. As a result of the deal, Arverne now holds 73.8 % of Lithium de France, with other investors such as Equinor Ventures and the company's management holding the remainder. Hydro's investment grants them the right to appoint an observer to Arverne's board, contingent on maintaining at least 5 % shareholding. This move aligns with Arverne's strategy of integrating geothermal energy solutions with critical-metals production, strengthening its position in the French energy-transition sector. The transaction also reflects Hydro's decision to shift from a direct lithium stake to a broader energy-transition investment within Arverne. The new shares were admitted for trading on Euronext Paris on October 6, 2025, with settlement completed on October 10. By deepening its stake in Lithium de France and welcoming a strategic partner as shareholder, Arverne is reinforcing its dual focus on geothermal infrastructure and sustainable lithium extraction.

https://arverne.earth/en/capital-arverne-ldf/

7. Aqua Metals Raises $13 Million to Accelerate Growth and Commercialization

Aqua Metals, Inc. (NASDAQ: AQMS), a leader in sustainable lithium-ion battery recycling, has raised approximately $13 million in gross proceeds through a registered direct offering. The financing included 1,133,794 shares of common stock and pre-funded warrants priced at $11.34 per unit, alongside unregistered warrants exercisable for the same number of shares over five years. The capital will support working capital needs, corporate purposes, and the commercialization of the company's proprietary AquaRefining™ technology. The Benchmark Company LLC, a StoneX affiliate, acted as sole placement agent for the transaction. The registered portion of the offering was conducted under an effective Form S-3 shelf registration with the U.S. Securities and Exchange Commission. Closing is expected on October 16, 2025, pending customary conditions. This raise marks a key milestone in Aqua Metals' expansion plans as it scales environmentally friendly recycling solutions for critical battery materials. The investment highlights growing confidence in the company's technology and role in advancing the clean energy supply chain.

https://ir.aquametals.com/press-releases/detail/326/aqua-metals-raises-13-million-from-leading-institutional

8. E3 Lithium & Axens Forge Strategic MOU for Lithium Carbonate and Sorbent Collaboration

E3 Lithium Ltd. and Axens have signed a non-binding memorandum of understanding (MOU) that sets the foundation for two separate yet complementary agreements: the sale of battery-grade lithium carbonate from E3 Lithium's Clearwater Project in Alberta and the supply of Axens' proprietary lithium-selective sorbent for use in E3's direct lithium extraction (DLE) processes. The companies will each undertake qualification processes — E3 producing lithium carbonate for Axens and Axens' sorbent being validated within E3's DLE operations. The MOU clarifies that the two agreements are independent of one another, allowing flexibility and reduced execution risk. Jointly they are also exploring funding pathways tied to each definitive agreement to support commercialisation and mutual growth. E3 Lithium sees the partnership as significantly de-risking its supply chain by securing access to a scaled sorbent producer, while Axens views the collaboration as reinforcing its positioning in low-carbon mobility and battery-materials supply chains. Both parties expect the agreements to enhance their competitive advantage amid rising demand for secure, sustainable lithium sources. The deal advances E3's strategy of domestic, direct-sale battery-grade lithium output and enables Axens to integrate proprietary sorbent technology into a globally-relevant lithium production project. This development underlines the increasingly interconnected nature of critical-minerals partnerships and the drive toward more integrated, end-to-end supply-chain solutions.

https://www.e3lithium.ca/newsroom/news-releases/e3-lithium-and-axens-sign-bilateral-mou-for-the-sale-of-lithium-carbonate-and-supply-of-lithium-selective-sorbent

9. American Battery Technology Unveils Milestone Pre-Feasibility Study for Tonopah Flats

American Battery Technology Company (NASDAQ: ABAT) has published its Pre-Feasibility Study (PFS) for the Tonopah Flats Lithium Project in Nevada, confirming strong economics and resource growth. The study reports an after-tax NPV (8%) of USD 2.57 billion and an internal rate of return of 21.8%, with a payback period of 7.5 years. Annual production is projected at 30,000 tonnes of lithium hydroxide monohydrate over a 45-year mine life, utilizing only the southern portion of the site. Processing costs are estimated at USD 4,307 per tonne, supported by improved feed grades and on-site power generation with battery storage. The resource base increased significantly, with Measured and Indicated resources up 53% and total resources up 11% from 2024 estimates. Proven and probable reserves now total 2.73 million tonnes under SEC standards. The project has been designated a national priority under the U.S. FAST-41 permitting framework, expediting approvals. ABTC now advances toward a Definitive Feasibility Study and commercialization phase. The results position Tonopah Flats as one of the largest and most advanced lithium claystone projects in North America.

https://americanbatterytechnology.com/press-release/american-battery-technology-company-publishes-milestone-pre-feasibility-study-accelerating-commercialization-of-its-tonopah-flats-lithium-project-one-of-the-largest-lithium-resources-in-the-united-st/

10. Critical Metals Secures $50 Million to Fund Greenland Rare Earth Project

Critical Metals Corp. has raised approximately $50 million through a private investment in public equity (PIPE) deal with an institutional investor. The financing includes around 1.47 million ordinary shares and pre-funded warrants for an additional 1.56 million shares. Proceeds will advance the company's flagship Tanbreez Project in southern Greenland, which hosts an estimated 4.7 billion tonnes of rare earth resources. The deposit is particularly rich in heavy and medium rare earth elements, positioning it as a key Western supply source outside China. Critical Metals has already signed offtake agreements covering 25% of expected output with Ucore Rare Metals and REalloys Corp. The funding demonstrates strong investor confidence in diversifying global rare earth supply chains. Alongside Tanbreez, the company owns the Wolfsberg Lithium Project in Austria, Europe's first fully permitted lithium mine. Despite a minor dip in share price after the announcement, the deal strengthens Critical Metals' financial position. The company now moves closer to securing permits and infrastructure to bring Tanbreez into production.

https://www.mining.com/critical-metals-secures-50m-to-fund-rare-earth-project-in-greenland/

11. ExGen Resources and MTB Metals Announce Merger to Form Multi-Metal Explorer

ExGen Resources Inc. and MTB Metals Corp. have entered into an Arrangement Agreement to merge, creating a well-funded copper, gold, and lithium exploration and development company. Under the terms, ExGen will acquire all outstanding MTB shares, with MTB shareholders receiving 0.286 ExGen shares for each of their own, resulting in roughly 35% ownership of the combined entity. The merger builds on the companies' August 2025 letter of intent and will integrate their complementary asset portfolios. The new company will combine ExGen's 20% carried interest in the Empire copper-gold project in Idaho with MTB's Telegraph and Southmore projects in British Columbia's Golden Triangle. The transaction is expected to strengthen financial resources, enhance technical expertise, and expand exploration reach across North America. Both firms see the deal as an opportunity to capitalize on the rising demand for critical metals. Completion remains subject to shareholder approval, court sanction, and TSX Venture Exchange clearance. A special meeting is planned for December 2025 to finalize the merger.

https://www.globenewswire.com/news-release/2025/10/17/3168545/0/en/Exgen-Resources-and-MTB-Metals-Enter-Into-Arrangement-Agreement-to-Merge-Creating-a-Well-Funded-Copper-Gold-and-Lithium-Exploration-and-Development-Company.html

12. Ontario Introduces Fast-Track Rules to Speed Up Mine Approvals

Ontario has launched a new regulatory framework called "One Project, One Process" (1P1P) to accelerate mine approvals and boost investment in critical minerals. The initiative sets a maximum two-year timeframe for approving advanced exploration and mine development projects, a major reduction from the previous system that could take up to 15 years. A dedicated Mine Authorization and Permitting Delivery Team will now oversee designated projects, acting as a single point of contact for all provincial approvals. The new framework maintains Indigenous consultation requirements but introduces a more coordinated and transparent process. Industry leaders have welcomed the changes, saying they will improve predictability and attract global investment. The policy targets key critical minerals such as nickel, lithium, and cobalt—vital for clean energy supply chains. By cutting red tape, Ontario aims to become a leading jurisdiction for mining development in North America. The government says the 1P1P model aligns with Canada's broader strategy to strengthen domestic mineral supply chains.

https://www.mining.com/new-ontario-rules-aim-to-speed-up-mine-approvals/

13. Argentina's Mining Exports Reach Record $4.2 Billion

Argentina's mining exports hit a record high of $4.21 billion in the first nine months of 2025, representing a 32.9% increase compared to the same period last year. The surge was fueled by strong global prices for gold and silver, alongside rapid growth in lithium production and exports. Lithium has become a key driver of Argentina's mining sector, reflecting the global demand for battery metals in clean energy technologies. The expansion of projects in the country's "Lithium Triangle" has positioned Argentina as a major player in the international lithium market. This record performance is providing vital foreign currency inflows and supporting efforts to diversify Argentina's export base beyond agriculture. The mining boom is also attracting increased investment interest from global resource companies. Analysts predict that total mining exports could surpass $5 billion by year-end, setting a new benchmark for the industry. The results underscore Argentina's growing role in the global critical minerals supply chain.

https://www.industrialinfo.com/news/article/argentina-mining-exports-hit-record-42-billion--347463

14. Toyota and Sumitomo Metal Mining Join Forces for Solid-State Battery Breakthrough

Toyota Motor Corporation and Sumitomo Metal Mining have entered a partnership to mass-produce advanced cathode materials for next-generation all-solid-state batteries (ASSBs). Building on joint research started in 2021, the collaboration focuses on enhancing the durability and efficiency of cathode materials while addressing charge and discharge degradation. Using Sumitomo's proprietary powder-synthesis technology, the companies have developed a highly durable cathode material tailored for ASSB applications. Toyota plans to launch battery electric vehicles equipped with solid-state batteries between 2027 and 2028. Sumitomo aims to begin large-scale production of the new cathode materials in fiscal year 2028, initially supplying Toyota. The partnership targets improved energy density, faster charging, and cost-efficient mass production. By integrating Toyota's battery and vehicle expertise with Sumitomo's materials technology, the alliance strengthens Japan's leadership in battery innovation. This initiative marks a key step toward accelerating solid-state battery commercialization and advancing global carbon-neutral mobility.

https://global.toyota/en/newsroom/corporate/43380876.html

15. LYTEN Plans Modular Battery Factory at Heide Site

Lyten has announced plans to develop a battery cell production facility near Heide in Schleswig-Holstein, Germany, leveraging the former site of Northvolt's gigafactory project. The company intends to adopt a phased, modular manufacturing strategy, initially combining conventional NMC lithium-ion technology with its proprietary lithium-sulfur battery chemistry. Lyten noted the site's location advantages — including strong renewable-energy infrastructure and an existing workforce — as key to its decision. The acquisition of the site is expected to be completed by the end of October, subject to final approvals. While Northvolt's original plan targeted some 3,000 direct jobs and 15 GWh annual capacity, Lyten currently projects about 1,000 jobs and has not yet disclosed full production capacity. Financing details remain unsettled; the previously pledged €700 million in federal and state funding for Northvolt are not automatically transferable. Lyten emphasizes private-capital funding and intends to broaden its customer base to include electric vehicles, industrial storage, and energy-storage systems. The move aligns with its mission to deliver clean, locally-manufactured batteries in Europe and the U.S. The strategic shift highlights how Europe's battery manufacturing landscape is evolving, with new players pursuing more flexible, technology-diverse production models.

https://www.marketscreener.com/news/lyten-s-plans-for-the-electric-car-battery-factory-construction-site-near-heide-ce7d5bd3d888f727

16. Vulcan Energy Secures Long-Term Lithium Supply Deal with Glencore

Vulcan Energy has signed a binding agreement with Glencore to supply between 36,000 and 44,000 tonnes of battery-grade lithium hydroxide monohydrate over an initial eight-year term. The lithium will be sourced from Vulcan's Lionheart Project on the Franco-German border, representing around 20% of the company's planned output during that period. This offtake agreement is the final step needed to complete financing for Phase One of the project. The contract also allows Vulcan to allocate some volumes to other European customers while leveraging Glencore's global distribution network. The partnership strengthens Vulcan's position in Europe's growing battery materials supply chain and supports regional electric vehicle production goals. For Glencore, the deal expands its exposure to critical battery metals amid rising EV demand. Construction of Vulcan's commercial-scale processing facilities is expected to begin in 2028, with production targeted for 2029. The agreement marks a major milestone for both companies in securing sustainable lithium supply within Europe.

https://api.investi.com.au/api/announcements/vul/23a28720-a69.pdf

17. E3 Lithium and Axens Sign Strategic MOU for Lithium Supply and Sorbent Technology

E3 Lithium Ltd. and Axens have signed a non-binding memorandum of understanding outlining two independent but complementary agreements. Under the MOU, E3 will supply battery-grade lithium carbonate from its Clearwater Project in Alberta, while Axens will provide its proprietary lithium-selective sorbent for use in E3's direct lithium extraction (DLE) technology. Both agreements will proceed independently, minimizing execution risk. E3 will produce lithium carbonate for Axens' qualification, while Axens' sorbent will undergo validation testing within E3's operations. The companies are also exploring joint funding options to support the definitive agreements. E3's CEO noted that the partnership de-risks its supply chain by securing a reliable sorbent supplier. Axens emphasized that the collaboration aligns with its commitment to low-carbon mobility and advanced material solutions. Together, the partnership strengthens both firms' roles in global critical mineral supply chains. The MOU marks an important step toward commercialization of sustainable lithium production technologies.

https://www.e3lithium.ca/newsroom/news-releases/e3-lithium-and-axens-sign-bilateral-mou-for-the-sale-of-lithium-carbonate-and-supply-of-lithium-selective-sorbent

18. Battery X Metals Files NI 43-101 Report for Y Lithium Project in Saskatchewan

Battery X Metals (CSE: BATX) has filed an independent NI 43-101 technical report for its Y Lithium Project near Bailey Lake, Saskatchewan. The 5,856-hectare property lies within the Ennadai Greenstone Belt, about five kilometers west of a known lithium- and tantalum-bearing pegmatite discovery. The company recently completed a high-resolution LiDAR and orthophoto survey valued at CAD $71,078, qualifying for a 1.5× exploration expenditure credit and reducing its 2025 spending requirement to approximately CAD $58,559. The report recommends a Phase I field program for summer 2026, focused on geological mapping and sampling, with an estimated cost of CAD $93,850. Battery X Metals aims to establish the Y Project as a district-scale lithium exploration asset within its broader strategy that includes battery metal exploration, technology, and recycling.

While nearby mineralization enhances the area's prospectivity, lithium resources on the Y Project remain unconfirmed. The company plans further exploration subject to permitting, funding, and market conditions.

https://www.minenportal.de/artikel/579152--Battery-X-Metals-Inc.-Files-NI-43-101-Technical-Report-for-Y-Lithium-Project-near-Bailey-Lake-Saskatchewan.html

EV and Batteries

19. Pure Lithium and Voltaiq Partner to Commercialise Lithium-Metal Batteries

On October 1, 2025, Pure Lithium announced a strategic partnership with Voltaiq to accelerate the commercialisation of its next-generation lithium-metal batteries. Pure Lithium will leverage Voltaiq's Enterprise Battery Intelligence platform to gain deeper analytics and insights into battery performance. The collaboration aims to enhance battery cycle life, reliability and safety—key shortcomings in current lithium-metal cell technology. Voltaiq's analytics will support Pure Lithium's development roadmap and help optimise design, manufacturing and validation of full-scale battery cells. Pure Lithium views this move as a critical step toward scaling its lithium-metal technology for automotive and energy-storage system applications. The alliance also signals growing convergence between mining-derived advanced battery materials and analytics-driven cell manufacturers. Voltaiq expects to add Pure Lithium's modules and data protocols into its platform, expanding its footprint into high-composition metals and evolving battery chemistries. The timing comes as demand for higher-energy-density battery systems intensifies amid the electrification push across transportation and storage sectors. Both companies emphasise the importance of data-centric workflows to bring lithium-metal batteries from lab to production-ready status.

https://www.businesswire.com/news/home/20251001228795/en/Pure-Lithium-Partners-with-Voltaiq-to-Accelerate-Commercialization

20. ElevenEs and ChemVolt Partner to Scale Battery Packs for India

ElevenEs (Luxembourg) and ChemVolt (India) have announced a strategic partnership aimed at accelerating development of battery packs, lithium-ion cells, and battery energy storage systems (BESS) in India. The collaboration will see the two companies combine their expertise in module assembly and cell production to serve the growing local EV and industrial storage markets. ElevenEs brings its global battery design and manufacturing knowledge, while ChemVolt contributes regional market access and systems integration capabilities. Together they aim to build supply-chain resilience in India, reducing dependence on imports by localising production of critical battery components. The agreement foresees flexible manufacturing of cell formats and pack configurations to meet diverse customer demands across mobility and stationary storage. This move aligns with India's push for sustainable manufacturing and lowering carbon emissions through electrification. Both firms expect to benefit from economies of scale, shared technology, and faster time-to-market for next-generation battery systems. The partnership is a timely response to surging demand for lithium-ion cells and BESS infrastructure triggered by rapid expansion in EV adoption and grid-scale storage requirements.

https://elevenes.com/news/new-strategic-partnership-elevenes-and-chemvolt-to-accelerate-indias-bess-and-ev-ecosystem/

21. Chinese EV Makers Ramp Up Global Expansion

Chinese electric-vehicle manufacturers are intensifying their overseas push as domestic market competition and price pressure increase. Many firms are focusing on establishing production facilities and showrooms in regions such as Europe, Southeast Asia and the Middle East. This global strategy helps bypass domestic saturation and tap into demand in emerging markets. Companies are forming strategic partnerships, investing in foreign manufacturing plants and aligning with local supply chains. The expansion also reflects Chinese automakers' ambitions to become major global players rather than primarily domestic brands. At the same time, some markets are responding with tariffs and trade restrictions, complicating the path to globalisation. The move abroad is seen as both a growth opportunity and a risk as companies navigate regulatory barriers and local competition. Chinese EV makers' ability to scale internationally may shape the broader competitive landscape of automotive electrification. If successful, the expansion could shift market share and influence away from traditional Western and Japanese carmakers.

https://www.just-auto.com/news/chinese-ev-makers-overseas-expansion/

22. Toyota-Panasonic JV PPES Begins Mass Production of EV Prismatic Batteries

Prime Planet Energy & Solutions (PPES), the joint venture between Toyota Motor Corporation and Panasonic Holdings Corporation, announced that on October 9, 2025 it began production on a new battery line at its Himeji factory in Japan. The line will produce a new prismatic lithium-ion battery variant for Toyota's mid-size electric SUVs, including the bZ4X, Lexus RZ and the Subaru Solterra, expected to go on sale in autumn 2025. The rollout underscores the companies' push to localise high-volume EV-battery manufacturing. The new battery line features enhanced energy density and production efficiency to support the upcoming global EV models. Himeji's updated manufacturing line marks a key milestone toward full-scale battery supply for the vehicles' next generation. The collaboration highlights the deepening integration between vehicle-OEM and battery-supplier operations. This development also reflects Japan's strategy to strengthen its EV battery manufacturing ecosystem. The move positions Toyota and Panasonic for more competitive EV launches across major markets while leveraging economies of scale in prismatic cell design and production.

https://www.p2enesol.com/en/news/20251009/

23. SK On to Ramp Up Production at U.S. Battery Plant in Georgia

SK On is increasing output at its U.S. battery manufacturing facility in Commerce, Georgia, operated by its subsidiary SK Battery America, to meet surging electric vehicle demand. The company plans to convert some of its existing nickel-cobalt-manganese (NCM) production lines to lithium-iron-phosphate (LFP) chemistry to serve both EV and energy storage markets. This expansion aligns with the growing production of electric vehicles by Hyundai Motor Group and Kia, which are sourcing more batteries domestically. The Georgia facility, already operating all 12 production lines, has tripled its output compared to last year. With a total investment of around USD 2.6 billion, the plant currently produces approximately 22 GWh of batteries annually—enough to power tens of thousands of EVs. The move to LFP technology reflects industry trends toward cost efficiency, durability, and improved safety. SK On's ramp-up also enhances its competitiveness under the U.S. Inflation Reduction Act incentives. The expansion solidifies its role in strengthening North America's EV battery supply chain.

https://www.just-auto.com/news/sk-on-to-ramp-up-output-at-its-us-battery-plant-in-georgia

24. Ecobat Sells UK Operations to Splitstone Capital

Ecobat, a global leader in battery recycling, has entered into a binding agreement to sell its UK battery recycling and specialty lead operations to funds advised by Splitstone Capital, a UK-based private-equity firm. The deal includes Ecobat's facility in Matlock—Europe's largest battery recycling plant—and its lead-sheet mill in Welwyn Garden City. Upon completion, Ecobat will exit the European lead market, following earlier divestitures in France, Italy, Germany, and Austria. The strategic shift allows Ecobat to focus on its U.S. operations and lithium-ion battery recycling business. The transaction is expected to close by late 2025, subject to regulatory approvals. Financial and legal advisory services were provided by Rothschild & Co and White & Case, respectively. For Splitstone Capital, the acquisition presents an opportunity to expand its industrial-services portfolio in the circular-economy sector. The move signals increasing investor interest in battery-materials recycling and sustainable resource-recovery businesses.

https://ecobat.com/2025/10/ecobat-announces-sale-of-u-k-operations-to-funds-advised-by-splitstone-capital-llp/

25. China's EV Battery Installations Hit 76 GWh in September

China's power battery installations reached approximately 76 GWh in September 2025, up 21.6% from August and 39.5% year-on-year. Lithium iron phosphate (LFP) batteries dominated the market with 62.2 GWh installed, accounting for 81.8% of the total and marking a 50.4% increase from a year earlier. Ternary nickel-manganese-cobalt (NMC) batteries contributed 13.8 GWh, representing 18.2% of installations, with modest annual growth of 5.2%. CATL maintained its leadership with 32.5 GWh installed, capturing a 42.8% market share, while BYD followed with 16 GWh and a 21.1% share. The strong monthly gains reflect surging domestic EV demand and the continued expansion of China's energy storage and mobility sectors. LFP batteries' cost-effectiveness and safety advantages continue to drive their widespread adoption. The September data underscores China's global dominance in battery production and deployment. With ongoing capacity expansion, the country remains the key driver of global EV electrification growth.

https://cnevpost.com/2025/10/15/china-sept-2025-ev-battery-installations/

26. South Korea Accelerates Push to Compete in LFP Battery Market

South Korea is stepping up efforts to compete with China's dominance in lithium-iron-phosphate (LFP) battery production as global automakers increasingly favor the chemistry for cost-effective electric vehicles. Korean battery manufacturers are expanding LFP output and strengthening supply chain partnerships to meet the rising demand for affordable, durable, and safer EV batteries. This strategic shift reflects the worldwide transition toward LFP technology, which offers lower costs and greater thermal stability compared with nickel-based batteries. Western automakers are also adopting LFP cells, prompting Korean suppliers to accelerate development. Companies are focusing on localizing cathode material production, advancing cell technology, and securing long-term contracts with global carmakers. The initiative aims to reduce dependence on Chinese suppliers and diversify global battery manufacturing hubs. Although China maintains a strong lead, South Korea's investments mark a growing challenge in the global LFP supply chain. The move underscores an industry-wide realignment toward sustainability, resilience, and cost competitiveness.

https://www.digitimes.com/news/a20251014PD230/research-insights-lfp-battery-supply-chain-automakers-lges.html

27. Ashok Leyland Begins Delivery of AVTR 55T Electric Trucks to ASAT Logistics

Ashok Leyland has begun delivering its AVTR 55T electric trucks to ASAT Logistics Pvt. Ltd., the strategic logistics partner of Shree Cement. The first batch of four trucks was handed over on October 15, 2025, as part of a larger order totaling 24 units. The AVTR 55T is equipped with advanced lithium-ion battery technology, dual-gun fast charging, and compatibility with standard trailers and superstructures. It also features automatic transmission, telematics, and Advanced Driver Assistance Systems (ADAS) for enhanced safety and efficiency. This delivery represents a significant step in electrifying India's heavy-duty logistics segment. ASAT Logistics will deploy the trucks to support Shree Cement's sustainable transportation goals. The move aligns with Ashok Leyland's broader commitment to zero-emission mobility and lower total cost of ownership for fleet operators. It also reinforces the company's leadership in India's transition toward clean, electric commercial vehicles. The rollout strengthens Ashok Leyland's growing portfolio of electric mobility solutions for industrial and freight sectors.

https://www.automotiveworld.com/news-releases/ashok-leyland-commences-delivery-of-avtr-55t-electric-trucks-to-asat-logistics-pvt-ltd-strategic-logistics-partner-of-shree-cement/

28. Toyota Aims to Launch EV with Solid-State Battery by 2027

Toyota Motor Corporation, in partnership with Sumitomo Metal Mining Co., plans to introduce an electric vehicle equipped with a solid-state battery by 2027 or 2028 — positioning it as the first of its kind. Solid-state batteries replace the liquid electrolyte found in conventional lithium-ion packs with a solid one, offering higher energy density, faster charging and enhanced safety. Toyota and Sumitomo have been working together since 2021 to develop a "highly durable cathode material" required for these advanced batteries. Mass production of the cathode material is expected to begin in fiscal year 2028, with Toyota vehicles taking priority. While promising, commercialization faces hurdles including raw-material sourcing, manufacturing complexity and cost reduction. The move reflects Toyota's strategy to leap ahead in EV technology and meet growing demand for longer-range and faster-charging electric vehicles. It also underscores the industry-wide push to make next-generation battery chemistry a commercial reality.

https://www.livescience.com/technology/electric-vehicles/toyota-to-launch-worlds-first-ev-with-a-solid-state-battery-by-2027-theyre-expected-to-last-longer-and-charge-faster

29. Toshiba Unveils New SCiB™ 24V Battery Pack for Mobility and Industry

Toshiba Corporation has launched its new SCiB™ 24V battery pack (model P25H20-3), designed for automotive, marine, and heavy-equipment applications. The pack serves as a direct replacement for conventional 24V lead-acid batteries, conforming to the Japanese Industrial Standard D23 specification. It can be connected in series (up to two units) or parallel (up to six units) to achieve a system output of up to 48V and 5.76 kWh. Featuring lithium-titanate oxide (LTO) chemistry, it delivers long cycle life, rapid charging, and excellent performance in low temperatures. The battery is also highly resistant to vibration and impact, making it ideal for demanding environments. Certified to IPX9K and IPX7 waterproof standards, it offers strong durability for industrial and marine use. The SCiB™ pack is already in use aboard Yamaha Motor's "e-Float Terrace" electric boat in Yokohama, Japan. Toshiba plans to expand deployment across logistics, transport, and construction sectors. The launch strengthens Toshiba's position in electrification and energy storage solutions.

https://www.renewableenergymagazine.com/electric_hybrid_vehicles/toshiba-launches-new-scib-24v-battery-pack-20251017

30. BMW South Africa CEO Urges Joint EV Battery Strategy with Europe

BMW South Africa CEO Peter van Binsbergen has urged the creation of a joint strategy between South Africa and Europe to establish an electric vehicle battery value chain independent of China. He emphasized that Europe's strong EV market and South Africa's established automotive manufacturing base create a natural partnership opportunity. South Africa, which produces more than half of Africa's vehicles, seeks to expand its role in the global EV supply chain but faces challenges including limited investment and unclear policy direction. With China currently dominating global battery production, meeting Europe's strict export "rules of origin" is becoming increasingly difficult. Van Binsbergen warned that without coordinated action, South Africa risks losing access to key European export markets. He called for a unified national roadmap rather than fragmented industry efforts. The proposed collaboration could strengthen supply chain resilience, attract foreign investment, and boost regional competitiveness. It also aligns with Europe's efforts to diversify critical mineral sourcing and secure sustainable battery production partnerships.

https://www.reuters.com/world/china/bmw-south-africa-ceo-calls-joint-ev-battery-strategy-with-europe-2025-10-02/

31. Epsilon Advanced Materials & Phillips 66 Team Up to Power U.S. EV Battery Manufacturing

Epsilon Advanced Materials has entered into a strategic partnership with Phillips 66 to strengthen the U.S. electric vehicle (EV) and energy storage system (ESS) battery-materials supply chain. The agreement secures supply of green and calcined needle coke—key feedstocks for synthetic graphite anode production—from Phillips 66's Louisiana refinery to support Epsilon's forthcoming North Carolina facility. Epsilon's planned plant is set to commence operations in 2027 with an initial annual capacity of 30,000 tonnes, growing to 60,000 tonnes by 2030. Once fully operational, the facility aims to supply graphite active anode material sufficient for around one million EVs each year in the U.S. The deal represents a major step in reducing dependence on foreign battery-raw-material imports and enhancing domestic resilience. By combining Phillips 66's feedstock and processing expertise with Epsilon's advanced materials capability, the collaboration creates a scalable, sustainable supply base. The timing aligns with accelerating demand for EVs and storage, making efficient graphite supply increasingly critical. The partnership also underscores the shift of battery-materials manufacturing into North America to meet policy incentives and industrial-strategy goals. With permitting already completed, Epsilon is now well positioned to deliver a large-scale North American anode-materials hub.

https://www.epsilonam.com/images/press-release/EAMPL_Press_Release_Sept_24.pdf

32. CATL Boss Set to Meet Korean Auto and Battery Industry Leaders

Contemporary Amperex Technology Co., Ltd. (CATL) Chairman Robin Zeng is scheduled to hold strategic talks with Hyundai Motor Company Chairman Chung Euisun and chief executives of South Korea's major battery-materials firms. The meetings reflect CATL's ambition to deepen collaboration with Korean carmakers and advanced materials suppliers, both domestically and overseas. Korea's battery ecosystem is viewed as a crucial partner in scaling global production and innovation for electric vehicles. By engaging directly with South Korea's key industry actors, CATL is reinforcing its intention to integrate more closely across the full EV value chain. These discussions highlight the growing importance of cross-regional alliances in the face of increasing competition in battery production and critical-materials sourcing. The outcome could shape how Chinese- and Korean-based firms coordinate efforts in manufacturing, supply-chain localisation, and technology development. The initiative also underscores the strategic push by global battery makers to secure tighter cooperation with automakers and material suppliers.

https://www.kedglobal.com/batteries/newsView/ked202510130009

33. Stellantis to Invest US$13 Billion in U.S. Expansion

Stellantis NV has announced a US$13 billion investment over the next four years to expand its manufacturing footprint in the United States — the company's largest single investment ever. The plan aims to increase U.S. vehicle production by around 50%, launch five new vehicle models, and refresh 19 existing models and powertrains by 2029. The investment will support creation of over 5,000 new jobs across key states including Illinois, Ohio, Michigan and Indiana. Key projects include the reopening of the Belvidere, Illinois plant, the launch of a midsize truck in Toledo, Ohio, a new large SUV program in Michigan, and a next-generation four-cylinder engine in Indiana. The move is driven in part by a desire to reduce exposure to import tariffs and boost domestic production resilience. The company described the U.S. expansion as central to its strategy and emphasized that success in America strengthens its global position. The investment includes R&D, supplier ecosystem support, and direct plant upgrades. The announcement reinforces the shift by major automakers toward re-shoring, regionalising production and aligning with changing trade and regulatory landscapes. For stakeholders, this signals renewed manufacturing vitality in U.S. automotive hubs and underscores Stellantis' long-term commitment to the American market.

https://www.stellantis.com/en/news/press-releases/2025/october/stellantis-to-invest-13-billion-to-grow-in-the-united-states

34. Global EV Battery Usage Surges 34.9% to 691.3 GWh in 2025

Between January and August 2025, global electric vehicle (EV, PHEV, HEV) battery usage reached 691.3 GWh, marking a 34.9% increase year-on-year. CATL led the market with 254.5 GWh installed, growing 31.9% and securing a 36.8% global share. BYD followed with 124.8 GWh, up 50.3%, reflecting strong demand for its integrated battery-vehicle production model. Korea's major producers—LG Energy Solution, SK On, and Samsung SDI—held a combined 16.8% share, down 3.8 percentage points from last year. LG Energy Solution supplied 67.4 GWh (+13.3%), SK On 29.2 GWh (+20.3%), while Samsung SDI declined to 20 GWh (–9.1%). The surge highlights accelerating EV adoption and rising competition among global battery suppliers. Chinese manufacturers continue to dominate the market, while Korean and Japanese firms face mounting pressure to scale production. Analysts expect total global battery usage to surpass 1,000 GWh by year-end, driven by robust EV sales and expanding energy storage deployments.

https://chinaevhome.com/2025/10/13/global-ev-battery-installations-hit-691-3-gwh-in-jan-aug-2025-catl-holds-36-8-byd-18/

35. Lyten Acquires Northvolt's Battery Energy Storage Manufacturing Facility in Poland

Lyten has completed the acquisition of Northvolt's battery energy storage system (BESS) manufacturing facility in Gdańsk, Poland — Europe's largest BESS production site. The 25,000 m² plant has an annual capacity of up to 6 GWh, with plans to expand beyond 10 GWh in the coming years. Lyten will restart operations immediately to fulfill existing orders and ramp up production for grid-scale storage, industrial, and EV-charging applications. The acquisition aligns with Lyten's strategy to integrate its advanced lithium-sulfur battery technology into large-scale European manufacturing. This move also supports Europe's goal of enhancing energy independence and reducing reliance on imported battery systems. The facility's robust infrastructure provides Lyten with a ready-made platform for rapid growth in the energy storage market. Financial details of the deal were not disclosed. The acquisition marks a major milestone in Lyten's global expansion, strengthening its manufacturing presence in Europe. It positions the company at the forefront of next-generation sustainable battery production.

https://lyten.com/2025/10/15/lyten-completes-acquisition-of-northvolt-bess-manufacturing-facility-in-poland/

36. Two Major EV Battery Supply-Chain Projects in Bécancour Paused

Two significant electric-vehicle battery supply-chain initiatives in Bécancour, Québec have been put on hold: one project — an expansion of a battery-cell facility — is indefinitely postponed, while another — a nickel-sulphate plant intended to support the first — has been cancelled. The developments highlight the interconnected risks within the EV battery ecosystem, as setbacks in one link ripple upstream and downstream. Both ventures were part of Canada's broader strategy to build a domestic battery-materials cluster in the region. Industry observers say the pause reflects slower-than-expected EV adoption and evolving market dynamics. The disruptions could delay local job creation and infrastructure development tied to the battery industry. The interruptions also raise questions about investor confidence in North American battery-materials projects. The strategic recalibration comes amid global oversupply risks and intense competition from established players in Asia. For Québec, successful repositioning may depend on revisiting project economics, incentives and timelines.

https://www.cbc.ca/news/canada/montreal/becancour-gm-posco-ev-battery-project-paused-9.6941007

37. BYD Initiates Record Recall of Over 115,000 Vehicles

BYD Auto has announced its largest-ever vehicle recall, covering more than 115,000 units of its Tang series and Yuan Pro models produced between 2015 and 2022. The recall comprises approximately 44,535 Tang vehicles manufactured from March 2015 to July 2017 due to component design flaws, and about 71,248 Yuan Pro EVs built from February 2021 to August 2022 over battery installation issues. The regulator cited risks including drive-motor controller malfunction in the Tang series and water-ingress vulnerabilities in the Yuan Pro battery pack. This action adds to earlier recalls by BYD involving more than 6,800 PHEVs and nearly 97,000 EVs in 2024 for fire or steering-control faults. The move underscores mounting quality and safety pressures as rapid EV scale-up brings design and production challenges. BYD's decision to activate such a large recall reflects its effort to preserve brand trust amid global expansion and intense competition. The recall also raises the stakes for supply-chain scrutiny in the EV sector and spotlights risk management in mass-market electric vehicle manufacturing.

https://www.euronews.com/business/2025/10/17/chinas-byd-makes-largest-recall-of-115000-cars-over-design-issues#:~:text=Chinese%20carmaker%20BYD%20(Build%20Your,produced%20between%202015%20and%202022.

38. GM and LG Energy Solution Win "Battery Innovation of the Year" for Manganese-Rich EV Technology

General Motors (GM) and LG Energy Solution have received the "Battery Innovation of the Year" award at the 2025 Battery Show North America for their advanced lithium-manganese-rich (LMR) battery cell technology. The new chemistry significantly increases manganese content in the cathode, reducing the need for expensive nickel and cobalt while lowering production costs. GM plans to deploy these LMR cells by 2028, starting with large electric trucks and SUVs such as the Chevrolet Silverado EV and Cadillac Escalade IQ. This milestone represents over a decade of joint R&D between the two companies. Development is supported by GM's Wallace Battery Cell Innovation Center in Michigan, where AI-driven testing has accelerated material qualification timelines. The LMR chemistry offers a strong balance of high energy density, extended range, and cost efficiency. The innovation strengthens GM's commitment to its "Triple Zero" vision — zero crashes, zero emissions, and zero congestion. This award highlights the growing focus on sustainable, supply chain-secure battery technologies driving the next phase of EV evolution.

https://news.gm.com/home.detail.html/Pages/topic/us/en/2025/oct/1008-General-Motors-wins-Battery-Innovation-Year-award.html

Salt and Electrolyte

39. Toyota and Sumitomo Partner to Mass-Produce Solid-State Battery Cathode Materials

Toyota Motor Corporation and Sumitomo Metal Mining have announced a partnership to mass-produce advanced cathode materials for next-generation all-solid-state batteries (ASSBs). Building on research collaboration that began in 2021, the companies have developed a highly durable cathode material using Sumitomo's proprietary powder-synthesis technology. The material is designed to improve battery performance, enhance safety, and reduce costs — key factors for scaling solid-state battery production. Toyota plans to launch its first battery electric vehicles (BEVs) equipped with solid-state batteries between 2027 and 2028. Sumitomo aims to start mass production of the new cathode materials in fiscal year 2028, initially prioritizing Toyota before expanding to other clients. The partnership represents a major step forward in Japan's battery industry, strengthening the domestic supply chain for advanced EV technologies. By combining Toyota's automotive expertise with Sumitomo's materials innovation, the companies aim to accelerate the commercialization of solid-state batteries. This collaboration underscores Japan's strategy to lead in next-generation battery development.

https://www.automotiveworld.com/articles/toyota-joins-sumitomo-to-mass-produce-solid-state-cathodes/

40. InnoEnergy Invests in Qkera's Ceramic Solid Electrolyte Startup

Dutch sustainable-energy firm InnoEnergy is leading a pre-seed funding round of several million euros into Munich-based advanced-materials startup Qkera, which was spun out in 2024 from the Technical University of Munich and Massachusetts Institute of Technology. Qkera is developing a ceramic electrolyte technology for lithium-ion batteries, designed to improve performance at low temperatures while cutting manufacturing complexity and cost. The investment is part of a broader push in Europe to localise next-generation battery materials and reduce reliance on overseas supply chains. Qkera's technology addresses long-standing issues like ceramic brittleness and uniform thin-film production. The partnership positions both firms to play a role in commercialising safe, high-energy-density batteries for electric vehicles and future mobility systems. With InnoEnergy's backing, Qkera can accelerate its product development and scale-up activities ahead of major pilot programmes. The move highlights growing investor focus on battery-materials innovation within the evolving EV ecosystem.

https://innoenergy.com/news-resources/innoenergy-leads-pre-seed-investment-in-qkera-to-accelerate-next-generation-battery-commercialisation/

41. AMG Lithium and Beijing Easpring Forge Strategic Battery-Materials MoU

AMG Lithium GmbH (a subsidiary of AMG Critical Materials N.V.) and Beijing Easpring Material Technology Co., Ltd. (Easpring) have signed a non-binding Memorandum of Understanding to collaborate on the supply and offtake of battery-grade lithium hydroxide monohydrate. Under the deal, Easpring will be supplied by AMG's European lithium-refining facility in Bitterfeld-Wolfen, Germany, marking a push to localize strategic battery-material supply chains in Europe. Easpring, a Chinese cathode-active-material (CAM) producer, is building a CAM plant in Kotka, Finland, aligning with the European localisation agenda. The agreement includes a collaborative phase during which AMG's plant undergoes qualification, while both parties negotiate a binding offtake contract. AMG emphasises the deal supports recycled feedstock usage and improved carbon-footprint performance across the value chain. Easpring expects that the partnership will boost development of Europe's new energy sector and strengthen its role in the supply chain. Together, the companies aim to enhance resilience, lower dependencies on imports, and support EV and battery-industry growth in Europe. The MoU reflects the wider trend of upstream materials companies and downstream manufacturers forging closer ties to secure supply and manage cost pressures. With this step, AMG and Easpring position themselves as key contributors to Europe's competitive battery-materials ecosystem.

https://chemweek.com/document/show/phoenix/6097490/AMG-Lithium-Beijing-Easpring-sign-MOU-for-battery-materials-supply?connectPath=&searchSessionId=2b713166-76e9-4763-92b5-598c9626a213

42. Huayou to Begin Lithium Sulphate Production in Zimbabwe in Early 2026

Chinese firm Huayou Cobalt (via its subsidiary Prospect Lithium Zimbabwe) is set to begin production of lithium sulphate at its newly completed plant in Zimbabwe's Arcadia mine during the first quarter of 2026. The facility has an anticipated annual capacity of over 50,000 tonnes—potentially exceeding 60,000 tonnes depending on configuration. Lithium sulphate serves as a key intermediate product in manufacturing battery-grade materials like lithium hydroxide and lithium carbonate. The move supports Zimbabwe's strategy to deepen local processing of lithium resources and build its domestic battery-materials ecosystem. Huayou acquired the Arcadia mine in 2022 for around $422 million and commissioned a lithium concentrator in 2023, positioning itself for downstream value capture. This production ramp-up reflects increased investor interest and the growing importance of African minerals in global EV supply chains. Zimbabwe's planned ban on lithium-concentrate exports starting in 2027 underscores the nation's push for value-added processing. The plant launch will mark a major milestone in both the region's mining transformation and the broader effort to secure battery precursor supply for the clean-energy transition.

https://clubofmozambique.com/news/huayou-to-start-zimbabwe-lithium-sulphate-production-early-2026-294147/

43. LLBS Completes Major Battery Precursor Plant in South Korea

LS-L&F Battery Solution (LLBS) has completed construction of a KRW 1 trillion (approximately USD 708 million) battery precursor materials plant at the Saemangeum industrial complex in North Jeolla Province, South Korea. The facility is set to begin trial production in the fourth quarter of 2025 with an initial annual capacity of 20,000 tons. LLBS plans to expand production to 120,000 tons by 2029—enough to supply materials for roughly 1.3 million electric vehicles per year. The plant will produce precursors composed of nickel, cobalt, manganese, and aluminum, key materials used in cathode manufacturing. This project supports South Korea's strategy to strengthen domestic battery supply chains and reduce reliance on China. Commercial output will ramp up once a nearby nickel-sulfate feeder plant by LS MnM begins operations at the end of 2025. The facility will play a vital role in securing stable raw material supplies for Korea's growing EV battery industry. This milestone marks LLBS's emergence as a key player in the global battery materials market.

https://www.electrive.com/2025/10/10/llbs-completes-korean-plant-for-battery-precursor-materials/

44. Molten Salt Solutions Awarded DOE Funding for Fusion-Grade Lithium

Molten Salt Solutions (MSS) has been selected for funding through the INFUSE program of the U.S. Department of Energy (DOE). The project, titled "Development of Fusion-Grade Lithium Material Specifications", aims to define and validate high-purity lithium material standards for commercial fusion-energy systems. MSS will collaborate with national laboratories and academic partners to characterise and qualify lithium materials suitable for tritium breeding and plasma-facing components in fusion reactors. The initiative addresses a critical gap in supply-chain readiness for fusion power, where standardized lithium feedstocks remain undeveloped. By establishing industry-relevant material specifications, the effort supports procurement, regulatory and engineering frameworks for future fusion plants. The award signals growing focus on clean-energy supply chains that span beyond conventional renewables. MSS's expertise in molten-salt chemistry and lithium isotopes positions it to become a key materials provider in the evolving fusion-ecosystem. The project underlines how lithium demand is expanding into advanced energy technologies beyond batteries. Overall, the funding marks a strategic step toward commercialising fusion power and securing the materials needed for next-generation energy infrastructure.

https://www.moltensaltsolutions.com/post/molten-salt-solutions-awarded-doe-infuse-funding-to-develop-fusion-grade-lithium-material-specificat

45. GM and Posco Pause Phase 2 of Canadian Battery Materials Plant

General Motors (GM) and Posco Future M have paused the second phase of their joint battery materials project in Bécancour, Québec, due to slowing electric vehicle demand and changing market dynamics. The first phase—a cathode active material (CAM) plant—remains on schedule to start production in 2026, but plans for a second-phase precursor materials facility have been suspended. The project, launched in 2022 with an investment of CAD 600 million, was expected to exceed USD 1 billion once both phases were completed. The pause also led to the cancellation of a related nickel sulfate plant by Vale, originally planned to supply the site. Québec's government stated the delay reflects global headwinds in the EV supply chain despite the province's strong renewable energy base. GM recently reported a USD 1.6 billion charge tied to adjustments in its EV strategy. The move underscores the challenges facing large-scale North American battery investments amid fluctuating demand. However, GM confirmed its commitment to complete phase one and reassess expansion when market conditions stabilize.

https://financialpost.com/commodities/energy/electric-vehicles/gm-vale-pause-battery-material-plans-canada-ev-pullback

LFP-ESS and Start ups

46. Chula Vista Approves 50 MW Battery Storage Project to Boost Clean-Energy Reliability

The city of Chula Vista has approved a 50 megawatt battery-storage facility aimed at strengthening local grid resilience and supporting renewable-energy integration. The project, developed by Wellhead Electric, seeks to store excess solar and wind power and dispatch it during periods of high demand and grid stress. By enabling renewables to contribute during peak hours, the system will help ensure more consistent power supply and reduce reliance on fossil-fuel generation. Located within Chula Vista, the installation will tie into the regional utility's infrastructure and benefit both residential and commercial customers. It is part of the broader California clean-energy initiative to achieve 90 % carbon-free electricity by 2035 and 100 % by 2045. The project is privately financed and will not require direct ratepayer funding. Construction timelines suggest the facility could begin operations in the near term, advancing local clean-energy targets. With growing demand for energy-storage solutions, Chula Vista's move reflects a shift toward decentralised, resilient power systems. The approval highlights the city's proactive stance in adapting to evolving energy-market dynamics and climate priorities.

https://www.sandiegouniontribune.com/2025/10/08/chula-vista-approves-50-megawatt-battery-storage-project-aimed-at-boosting-clean-energy-reliability/

47. California Advances 6 GW Procurement Plan to Slash Risk from Expiring Tax Credits

The California Public Utilities Commission (CPUC) has proposed that the state commit to ordering an additional 6 GW of clean-energy capacity between 2029 and 2032 to take full advantage of soon-to-expire federal tax credits for renewables. The framework outlines phases of 3 GW by 2029, 4.5 GW by 2031 and the full 6 GW by 2032. This accelerated procurement is intended to help utility load-serving entities optimise project eligibility for incentives while avoiding higher future cost burdens for ratepayers. Although some stakeholders argue this pace may be premature, the CPUC judges it likely aligns with long-term resource-adequacy goals tied to load growth from data centres, EV-charging and building electrification. California's broader procurement target already calls for over 40 GW of capacity by 2032, including 17.5 GW of utility-scale solar, 13.5 GW of battery storage and 3.5 GW of wind. The move underscores urgency as the 30 % Investment Tax Credit and other federal incentives approach adjustment or expiry under current legislation. Utility groups caution, however, that interconnection, permitting and supply-chain bottlenecks may limit the effectiveness of an accelerated push. Stakeholders will submit comments on the proposal through October, as the CPUC seeks to balance ambition with practicability and cost control.

https://pv-magazine-usa.com/2025/10/07/california-proposes-order-of-6-gw-by-2032-to-get-ahead-of-expiring-tax-credits/

48. MAHLE Enters Stationary Battery-Storage Market with New Cooling Module

MAHLE has received its first series order for a liquid-cooled module designed specifically for stationary battery storage systems, marking its entry into the energy-storage sector. Drawing on its automotive thermal-management expertise, the company is adapting technology used in electrified buses into modules tailored for containerised battery storage units. The newly developed cooling solution delivers up to 42 kW of cooling capacity, enabling battery temperatures to be maintained in the optimal 20–30 °C range for longer life and reliable performance. Production is slated to begin in 2026, with the module intended for systems supporting grid stability and renewable-energy storage applications. The module's compact, space-efficient design addresses the premium on space in container systems. MAHLE's move reflects its broader strategy to diversify beyond the automotive sector and secure growth in energy infrastructure markets. By entering the stationary-storage segment, the company positions itself in the fast-growing clean-energy supply-chain ecosystem. This initiative also underscores the increasing convergence between automotive-engineering suppliers and energy-storage infrastructure development.

https://newsroom.mahle.com/press/en/press-releases/mahle-starts-to-cool-stationary-battery-storage-systems-110528#

49. China Leads the World in New Energy Storage Capacity

China's installed new energy storage capacity reached 73.76 GW by the end of 2024, representing over 40% of the global total, and surged to 94.91 GW (222 GWh) by mid-2025 — a 29% increase. This marks an extraordinary twentyfold growth over the past five years, driven by policies under the nation's 14th Five-Year Plan. Utilization efficiency is improving, with provinces such as Zhejiang, Jiangsu, Chongqing, and Xinjiang achieving over 1,000 full-load equivalent hours in 2024. Lithium-ion batteries continue to dominate the market, but China is also accelerating development of emerging storage technologies. In 2024 alone, 56 pilot projects were launched to diversify technology pathways and enhance grid flexibility. The expansion underscores the country's strategic focus on stabilizing renewable energy generation and ensuring grid reliability. China's dominance positions it as the global leader in energy storage manufacturing, deployment, and innovation. This rapid growth also highlights shifting global supply chain dynamics as nations race to scale storage capacity for clean energy integration.

https://www.newenergyera.com/news/china-leads-the-world-in-new-energy-storage-capacity.html

50. LG Launches "Essential Series" Home Appliances Tailored for India

LG Electronics India has introduced its Essential Series of home appliances designed specifically for Indian households. Developed after extensive feedback from over 1,200 families, the collection includes a double-door refrigerator, top-load washing machine, room air-conditioner and convertible oven — all engineered around local usage patterns and environmental conditions. Under the campaign slogan "Har Ghar Appliances, Har Ghar Happiness", LG aims to make innovation more accessible and relevant for everyday Indian homes. With a "Made in India, Made for India" approach, the products combine durability, modern features and affordability. Entry-level models start at around ₹18,000, and sales will commence nationwide from November 2025. Distribution will span LG brand stores, multi-brand retail outlets and leading online platforms. The launch marks LG's first major consumer-launch event following its recent public-listing in India, signalling its renewed focus on the Indian market. By aligning product design closely with Indian consumer needs, LG aims to strengthen its presence and grow market share in the-rapidly expanding Indian appliance segment.

https://www.gizmochina.com/2025/10/15/lg-essential-series-launched-india/

51. Energy Storage, Made in America

EG4 Electronics has partnered with LG Energy Solution to secure over 13 GWh of U.S.-manufactured lithium iron phosphate (LFP) battery cells, marking a major step toward an American-made energy storage supply chain. Based in Sulphur Springs, Texas, EG4 has rapidly expanded to around 500 employees in just five years. The partnership aims to reduce dependence on imported battery materials and mitigate risks tied to tariffs and "foreign entity of concern" regulations. The domestically produced LFP cells will feature a 15-year warranty and are positioned to be cost-competitive in the U.S. market. This initiative supports the growing demand for behind-the-meter storage systems and aligns with national policies promoting local clean energy manufacturing. EG4 plans to extend its offerings from residential to commercial and mid-sized industrial energy storage markets. The collaboration strengthens U.S. energy resilience while fostering job creation and technological independence. Industry analysts see this as a model for how storage capacity and supply chain sovereignty can grow in tandem. The deal underscores a broader shift toward fully domestic energy storage production in America.

https://pv-magazine-usa.com/2025/09/23/energy-storage-made-in-america/

Technology and Regulatory

52. Molten Salt Solutions Awarded DOE Funding to Develop Fusion-Grade Lithium Material Specifications

Molten Salt Solutions (MSS) has been selected for funding by the U.S. Department of Energy (DOE) under its INFUSE program to support the project titled "Development of Fusion-Grade Lithium Material Specifications". The initiative aims to define, characterise and validate high-purity lithium materials necessary for commercial-scale fusion energy systems, filling a key materials specification gap in the industry. MSS will partner with national laboratories and other institutions to establish these material standards, crucial for tritium breeding and plasma-facing components in fusion reactors. The project supports the creation of a reliable domestic supply chain tailored to fusion-energy applications and reinforces the link between advanced battery materials and next-generation energy infrastructure. This funding underscores the strategic importance of lithium beyond batteries, extending into nuclear-fusion technology. The award positions MSS as a key player in the emerging fusion-materials ecosystem and strengthens U.S. competitiveness in advanced energy supply chains.

https://www.moltensaltsolutions.com/post/molten-salt-solutions-awarded-doe-infuse-funding-to-develop-fusion-grade-lithium-material-specificat

53. Gotion High-Tech Enters Pilot Production of Solid-State Batteries

Gotion High-Tech, backed by Volkswagen Group, has entered pilot-scale production of its all-solid-state "Jinshi" battery at a 0.2 GWh facility. The battery uses a sulfide-based solid electrolyte and boasts an energy density of approximately 350 Wh/kg—around 40 % higher than many current lithium-ion cells. The company reports a 90 % yield rate in the pilot line and has achieved full localisation of core production equipment. Key performance attributes include over 3,000 charge/discharge cycles and a projected driving range of 1,000 km for vehicles using the battery. Gotion is also planning a 2 GWh mass-production line, signalling the move from pilot to industrial scale. Vehicle trials are targeted for 2027, with full commercialisation expected toward 2030. The milestone underscores China's push to close the gap in next-generation battery technologies. By advancing solid-state manufacturing domestically, Gotion strengthens its strategic position in the global EV battery race.

https://www.automotiveworld.com/articles/chinas-gotion-enters-solid-state-pilot-production/

54. Sodium Batteries: Cheaper Than Lithium and Getting Powerful

Researchers have made a breakthrough in sodium-based solid-state batteries that could bring them on par with lithium-ion systems in performance while offering much lower cost and greater material abundance. A newly developed sodium compound enables efficient ion conduction and supports thicker, energy-dense cathodes—helping to close the long-standing gap in performance under typical temperatures. Sodium is far more abundant and less environmentally damaging to extract than lithium, making it a promising alternative in the transition to sustainable energy. This advances the vision of factories producing both lithium and sodium-based batteries side by side. Although sodium batteries previously lagged in energy density, the latest research shows they can operate reliably from room temperature down to below freezing. While lithium-ion tech remains dominant today, sodium alternatives are now more viable for applications such as grid storage and lower-cost EVs. The development paves the way for a more diversified battery-materials ecosystem, reducing dependency on scarce lithium resources and easing supply-chain pressures.
https://www.sciencedaily.com/releases/2025/10/251016223116.htm

55. China Files WTO Complaint Over India's EV Battery Subsidies

China has lodged a formal complaint at the World Trade Organization (WTO) against India, alleging that India's subsidies for electric-vehicles (EVs) and batteries give its domestic industries an unfair competitive edge. The complaint claims that India's incentive schemes breach WTO rules on national treatment and act as prohibited import-substitution subsidies. China's commerce ministry urges India to reverse the policies, warning of "firm measures" to protect Chinese firms' interests. India's EV initiatives include production-linked incentives and domestic value-addition requirements aimed at scaling manufacturing. The move reflects rising friction between the two major economies over clean-technology supply chains and access to fast-growing auto markets. The first procedural step will involve consultations under WTO rules, which may lead to a formal dispute panel if no resolution is found. India's official trade balance with China and growing EV industry ambitions add context to the tensions. Analysts view the case as signalling intensifying trade scrutiny in the global EV battery sector. The outcome could have broad implications for subsidy-driven clean-tech policies worldwide.
https://www.electrive.com/2025/10/16/china-files-wto-complaint-over-india-ev-and-cell-subsidies/

56. Korea University Researchers Improve Lithium-Metal Battery Safety with Silver-Ion Coating

A research team at Korea University has developed an ultrathin silver-ion coating for lithium-metal battery electrodes that significantly enhances safety and lifespan. The novel technique alternates layers of silver ions and trithioisocyanuric acid (TCA) on the electrode surface, forming a protective barrier that guides uniform lithium deposition and suppresses damaging "dendrite" growth. In lab tests, batteries using the coating retained over 96% of their capacity after more than 1,300 charge-discharge cycles and operated stably for over 2,000 hours. The process is notable for being simple, operating at room temperature and atmospheric pressure without nanoparticle synthesis or high-temperature treatment. The silver ions convert into silver nanoparticles during use, which help lithium atoms distribute evenly, while the TCA matrix prevents electrode surface damage. The team believes the approach could extend beyond lithium to other metal battery systems such as sodium and zinc, opening paths to broader applications. This breakthrough tackles one of the major hurdles in commercialising lithium-metal batteries—namely, safety and cycle life—bringing the technology closer to real-world use. The development comes as

battery manufacturers seek higher energy-density solutions to power next-generation electric vehicles and grid storage. It also signals progress in advanced materials research that could enable more robust, efficient batteries across sectors.
https://cbe.korea.ac.kr/wp/%ec%84%b8%eb%af%b8%eb%82%98-%ec%95%88%eb%82%b4/newshot/?vid=260