

# The Global Advanced Li-ion and Beyond Lithium Batteries Market 2025-2035

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# **Abstracts**

The battery technology landscape is undergoing a profound transformation as the industry shifts from conventional lithium-ion solutions toward advanced chemistries and beyond-lithium alternatives. While lithium-ion (Li-ion) technology currently dominates the global battery market with over 99% market share, emerging technologies are poised to capture approximately >25% of the market by 2035. This report provides an in-depth analysis of both advanced Li-ion batteries and beyond-lithium technologies that will revolutionize energy storage across multiple applications from 2025 to 2035. Report contents include:

Battery demand in GWh by technology type (2025-2035)

Market valuation in billions of dollars

Application-specific adoption curves

Regional market development

Material consumption trends for advanced anodes and cathodes

Analysis of Next-Generation Lithium-Ion Technologies:

Silicon and silicon-carbon composite anodes

High and ultra-high nickel cathode materials

Single crystal cathodes



Lithium-manganese-rich (LMR-NMC) formulations Advanced electrolyte systems Lithium manganese iron phosphate (LMFP) **Beyond-Lithium Solutions:** Semi-solid-state and solid-state batteries Sodium-ion and sodium-sulfur systems Lithium-sulfur batteries Lithium-metal and anode-less designs Zinc-based technologies Redox flow batteries Aluminum-ion batteries Specialized Form Factors: Flexible batteries Transparent energy storage Degradable batteries Printed and 3D-printed solutions Application Market analysis: Electric Vehicle Ecosystem:

Passenger electric vehicles (BEV/PHEV)



Electric buses, trucks, and commercial vehicles

Micro-mobility solutions

Off-road applications including construction and marine

Battery sizing requirements by vehicle type

Grid Energy Storage:

Large-scale installations

Behind-the-meter commercial systems

Residential storage solutions

Consumer Electronics:

Next-generation devices

Wearable technology

Portable power applications

Supply Chain and Manufacturing Analysis

Advanced cathode production methods

Silicon anode manufacturing processes

Solid-state battery production techniques

Recycling technologies for lithium-ion and beyond-lithium batteries

Raw material requirements and supply chain considerations

The integration of AI in battery development and production

Technology readiness assessments and commercialization timelines



Application-specific battery selection frameworks

Regional competitive advantages in battery innovation

Material intensity and sustainability considerations

Emerging use cases for specialized battery technologies

Competitive Landscape. The report profiles over 375 companies across the battery value chain, from established manufacturers to innovative start-ups, with detailed analysis of their technology positioning, production capabilities, and strategic partnerships. Companies profiled include 2D Fab AB, 24M Technologies, Inc., 3DOM Inc., 6K Energy, Abound Energy, AC Biode, ACCURE Battery Intelligence, Addionics, Advano, Agora Energy Technologies, Aionics Inc., AirMembrane Corporation, Allegro Energy Pty. Ltd., Alsym Energy, Altairnano / Yinlong, Altris AB, Aluma Power, Altech Batteries Ltd., Ambri, Inc., AMO Greentech, Ampcera, Inc., Amprius, Inc., AMTE Power, Anaphite Limited, Anthro Energy, APB Corporation, Appear Inc., Ateios Systems, Atlas Materials, Australian Advanced Materials, Australian Vanadium Limited, Australia VRFB ESS Company (AVESS), Avanti Battery Company, AZUL Energy Co., Ltd, BAK Power Battery, BASF, BattGenie Inc., Basquevolt, Bedimensional S.p.A, Beijing WeLion New Energy Technology, Bemp Research Company, BenAn Energy Technology, BGT Materials Ltd., Big Pawer, Biwatt Power, Black Diamond Structures, LLC, Blackstone Resources, Blue Current, Inc., Blue Solutions, Blue Spark Technologies, Inc., Bodi, Inc., Brill Power, BrightVolt, Inc., Broadbit Batteries Oy, BTR New Energy Materials, Inc., BYD Company Limited, Cabot Corporation, California Lithium Battery, CAMX Power, CAPCHEM, CarbonScape Ltd., CBAK Energy Technology, Inc., CCL Design, CEC Science & Technology Co., Ltd, Contemporary Amperex Technology Co Ltd (CATL), CellCube, CellsX, Central Glass Co., Ltd., CENS Materials Ltd., CERQ, Ceylon Graphene Technologies (Pvt) Ltd, Cham Battery Technology, Chasm Advanced Materials, Inc., Chemix, Chengdu Baisige Technology Co., Ltd., China Sodium-ion Times, Citrine Informatics, Clarios, Clim8, CMBlu Energy AG, Connexx Systems Corp, Conovate, Coreshell, Customcells, Cymbet, Daejoo Electronic Materials, Dalian Rongke Power, DFD, Dotz Nano, Dreamweaver International, Eatron Technologies, Ecellix, Echion Technologies, EcoPro BM, ElecJet, Elestor, Elegus Technologies, E-Magy, Energy Storage Industries, Energoly AB, Enfucell Oy, Enevate, EnPower Greentech, Enovix, Ensurge Micropower ASA, E-Zinc, Eos Energy, Enzinc, Eonix Energy, ESS Tech, EthonAI, EVE Energy Co., Ltd, Exencell New Energy, Factorial Energy, Faradion



Limited, Farasis Energy, FDK Corporation, Feon Energy, Inc., FinDreams Battery Co., Ltd., FlexEnergy LLC, Flow Aluminum, Inc., Flux XII, Forge Nano, Inc., Forsee Power, Fraunhofer Institute for Electronic Nano Systems (ENAS), Front Edge Technology, Fuelium, Fuji Pigment Co., Ltd., Fujitsu Laboratories Ltd., Corporation Guangzhou Automobile New Energy (GAC), Ganfeng Lithium, GDI, Gelion Technologies Pty Ltd., Geyser Batteries Oy, General Motors (GM), Global Graphene Group, Gnanomat S.L., Gotion High Tech, GQenergy srl, Grafentek, Grafoid, Graphene Batteries AS, Graphene Manufacturing Group Pty Ltd (GMG), Great Power Energy, Green Energy Storage S.r.l. (GES), GRST, Shenzhen Grepow Battery Co., Ltd. (Grepow), Group14 Technologies, Inc., Guoke Tanmei New Materials, GUS Technology, H2 Inc., Hansol Chemical, HE3DA Ltd., Hexalayer LLC, High Performance Battery Holding AG, HiNa Battery Technologies Limited, Hirose Paper Mfg Co., Ltd., HiT Nano, Hitachi Zosen Corporation, Horizontal Na Energy, HPQ Nano Silicon Powders Inc., Hua Na New Materials, Hybrid Kinetic Group, HydraRedox Iberia S.L., IBU-tec Advanced Materials AG, Idemitsu Kosan Co., Ltd., Ilika plc, Indi Energy, INEM Technologies, Inna New Energy, Innolith, InnovationLab, Inobat, Intecells, Intellegens, Invinity Energy Systems, Ionblox, Inc., Ionic Materials, Ionic Mineral Technologies, Ion Storage Systems LLC, Iontra. I-Ten SA, Janaenergy Technology, Jenax, Inc., Jiana Energy, JIOS Aerogel, JNC Corporation, Johnson Energy Storage, Inc., Johnson Matthey, Jolt Energy Storage, JR Energy Solution, Kemiwatt, Kite Rise Technologies GmbH, KoreaGraph, Korid Energy / AVESS, Koura, Kusumoto Chemicals, Largo, Inc., Le System Co., Ltd, Lepu Sodium Power, LeydenJar Technologies, LG Energy Solutions, LiBest, Inc., Libode New Material, LiCAP Technologies, Inc., Li-Fun Technology, Li-Metal Corp, LiNa Energy, LIND Limited, Lionrock Batteries, LionVolt BV, Li-S Energy, Lithium Werks BV, LIVA Power Management Systems GmbH, Lucky Sodium Storage, Lyten, Inc., Merck & Co., Inc., Microvast, Mitsubishi Chemical Corporation, Monolith AI, Moonwat, mPhase Technologies, Murata Manufacturing Co., Ltd., NanoGraf Corporation, Nacoe Energy, nanoFlocell, Nanom, Nanomakers, Nano One Materials, NanoPow AS, Nanoramic Laboratories, Nanoresearch, Inc., Nanotech Energy Inc., Natrium Energy, Natron Energy, Nawa Techonologies, NDB, NEC Corporation, NEI Corporation, Neo Battery Materials Ltd., New Dominion Enterprises, Nexeon, NGK Insulators Ltd., NIO, Inc., Nippon Chemicon, Nippon Electric Glass, Noco-noco, Noon Energy, Nordische Technologies, Novonix, Nuriplan Co., Ltd., Nuvola Technology, Nuvvon, Nyobolt, OneD Battery Sciences, Our Next Energy (ONE), Paraclete Energy, Paragonage, PEAK Energy, Piersica, Pinflow Energy Storage, PJP Eye Ltd., Polarium, PolyJoule, PolyPlus Battery Company, Posco Chemical, PowerCo SE, prelonic technologies, Prieto Battery, Primearth EV Energy Co., Ltd., Prime Batteries Technology, Primus Power, Printed Energy Pty Ltd., ProfMOF AS and more.....



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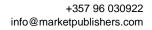


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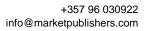
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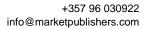
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