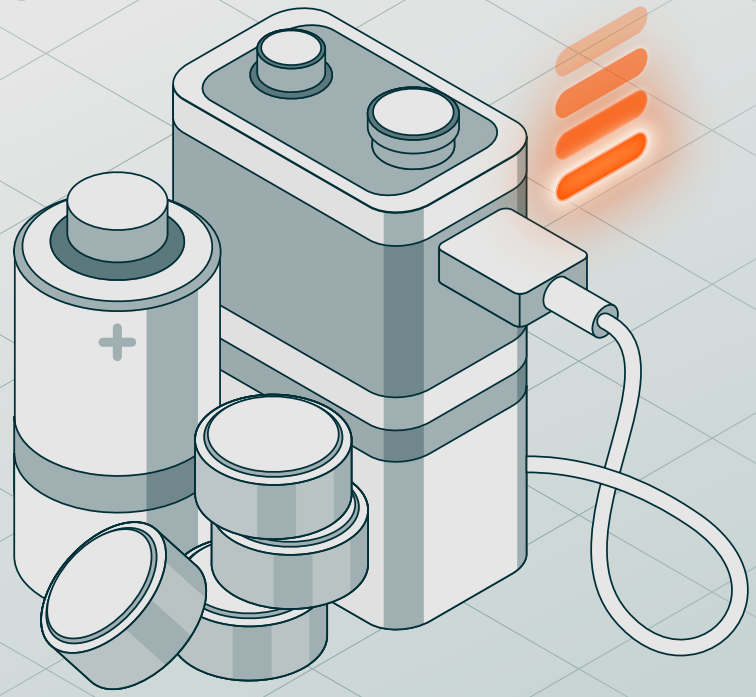
Batteries Included?

Providing the Juice for a Range of Growth Stories



GLOBAL X
by Mirae Asset

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The Bottom Line

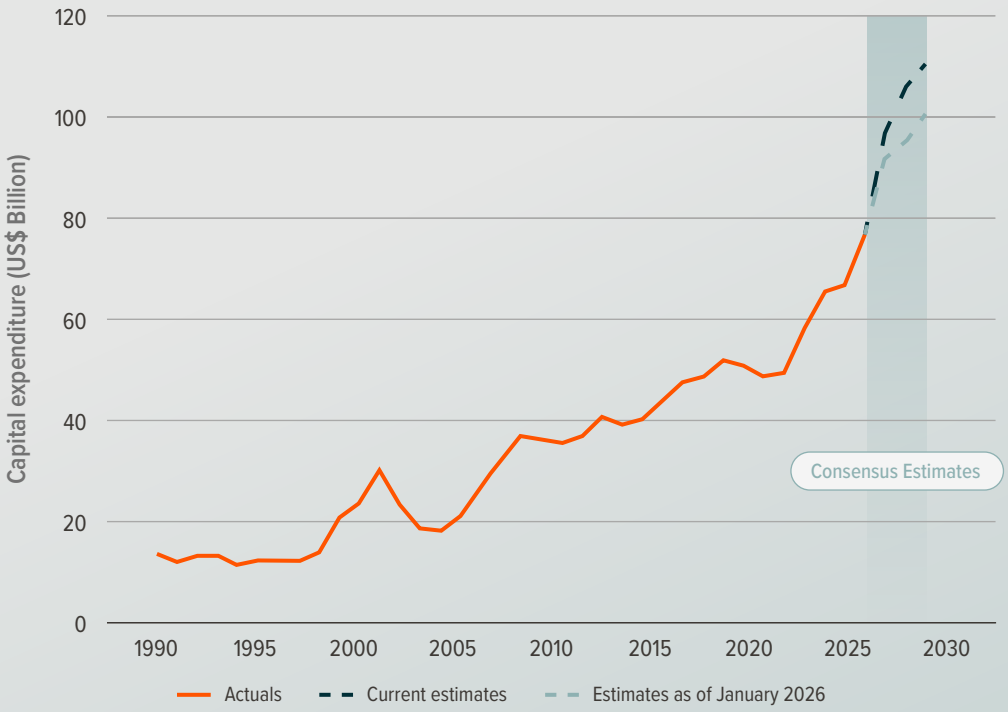
AI, electrification and reindustrialisation have a common trait: reliance on batteries. EVs dominate the modern battery industry and still account for more than 70% of battery demand, however the power grid has become its second engine of growth.[1] Grid-scale battery energy storage systems (BESS), which store electricity for utilities and grid operators, make up around 80% of new storage capacity.[2]

Critically for investors, the companies that make EV batteries increasingly supply grid batteries in parallel. CATL, which produces around 40% of EV batteries is also the largest supplier of grid storage cells.[3] Battery makers are therefore no longer pure EV plays: two end markets diversify their revenue and reduce dependence on any one demand cycle.

Innovation needs scale to reach the market, so new chemistries like sodium-ion and solid-state are strengthening the largest battery makers, rather than displacing them. With AI, electrification and reindustrialisation all running on batteries, the companies that make them, and the miners that supply the materials, sit at the centre of three of the decade's biggest growth stories.

Annual battery storage additions went from 10GW to over 100GW in just 4 years, a scale-up that took solar 8 years and wind 15.[4] The battery is now part of the grid, and therefore downstream of the investment flowing into it. US utilities plan $1.4 trillion of investment through 2030, with $239 billion of that coming in 2026, up 17% on a record 2025.[5]

FIGURE 1: US ELECTRIC UTILITY CAPEX, WITH CONSENSUS ESTIMATES



Note: 2026 to 2028 are consensus estimates. Source: Global X ETFs illustration with information derived from Bloomberg L.P. (October 2026). There is no guarantee that any trends observed in this material will continue. Any views and opinions are based on current market conditions and are subject to change.

Two Engines of Growth

Categorising battery demand as a purely EV story is now an oversimplification. While EV adoption still carries momentum, the high-velocity growth in batteries is now coming from:

Electrification
EVs still buy more than seven in every ten batteries made, and the growth has moved to Europe and emerging markets.[6, 7]

Grid expansion
Storage additions rose 48% in 2025 to a record 112GW, extending a run of annual records that began in 2014.[8]

AI
Utilities and data centre developers are leaning on batteries to connect new load faster than the grid can be rebuilt.

Reindustrialisation
Idle EV cells in the US are being converted to make grid batteries.[9]

The result is a demand base with two legs instead of one. The car base is large, growing but policy-sensitive, whilst the grid is smaller but tied to long-life infrastructure. Both have benefitted in 2026 from a combination of geopolitical & energy shocks, innovation and improved battery economics.[10]

> **"The result is a demand base with two legs instead of one. The car base is large, growing but policy-sensitive, whilst the grid is smaller but tied to long-life infrastructure."**

70%

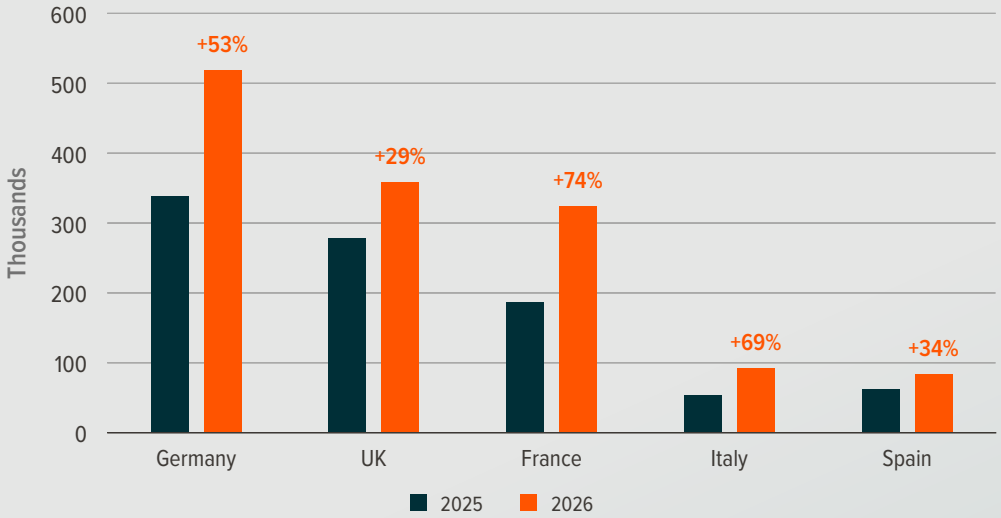
Percentage of battery industry consisting of EV demand

The Car Still Pays the Bills

EVs remain the anchor of battery demand: they accounted for more than 70% of global battery deployment in 2025, down from almost 80% in 2024 and are rising incrementally in 2026, especially in Europe.[11] EV registrations across the EU, EFTA and UK rose 29% in the first 8 months of 2026.[12]

FIGURE 2: EUROPEAN COUNTRIES' EV DEMAND GROWTH IN 2026

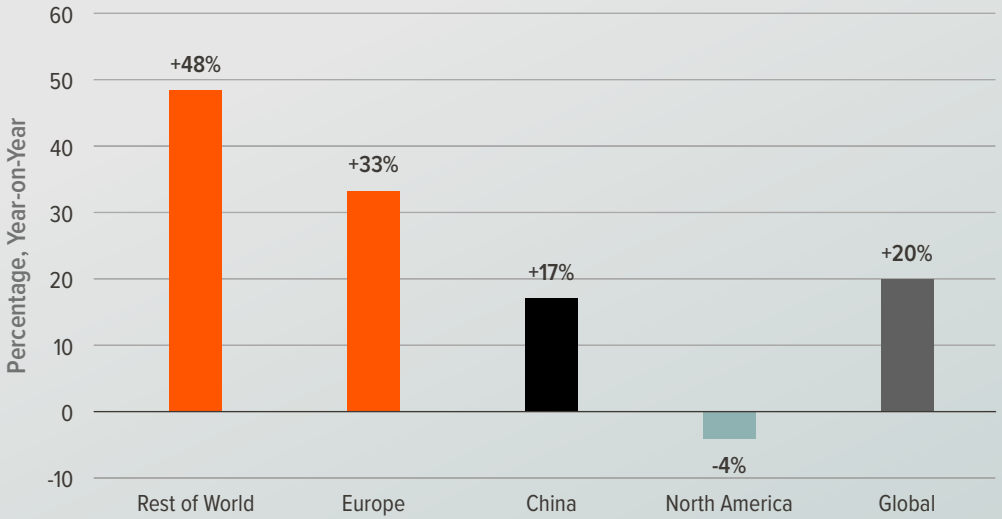
BATTERY-ELECTRIC CAR REGISTRATIONS, JANUARY TO AUGUST



Note: 2026 figures are provisional. Source: Global X ETFs illustration with information derived from ACEA (September 2026). There is no guarantee that any trends observed in this material will continue. Any views and opinions are based on current market conditions and are subject to change.

FIGURE 3: US ELECTRIC UTILITY CAPEX, WITH CONSENSUS ESTIMATES

EV SALES GROWTH, 2025



Note: Passenger cars and light-duty vehicles. Source: Global X ETFs illustration with information derived from Rho Motion / Benchmark Mineral Intelligence (January 2026). There is no guarantee that any trends observed in this material will continue. Any views and opinions are based on current market conditions and are subject to change.

The Battery Became Grid Infrastructure

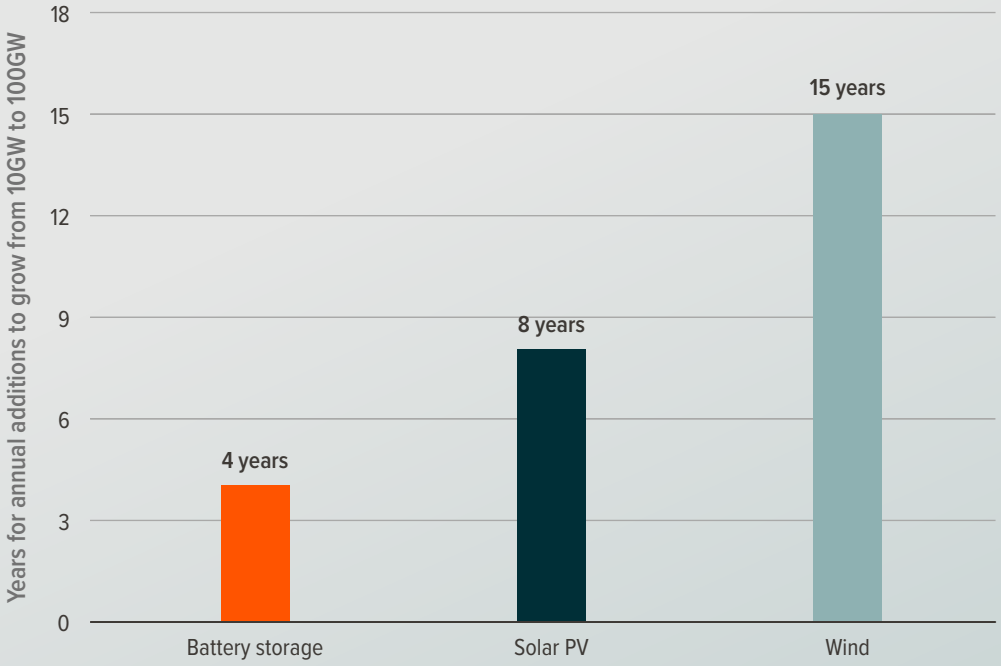
Energy storage is now the incremental buyer of batteries. Global additions excluding pumped hydro are up 48% in 2025, reaching 112GW.[13] No major power technology has scaled faster.

Albemarle reported that global lithium consumption grew 45% from January to May 2026, above its own 15% to 40% forecast range, with stationary storage driving the beat and inventories near historic lows.[14] The IEA calls battery storage the fastest-growing power technology today; installed capacity is 11x its 2021 level.[15]

45%

Increase in global lithium consumption within five months across January to May 2026

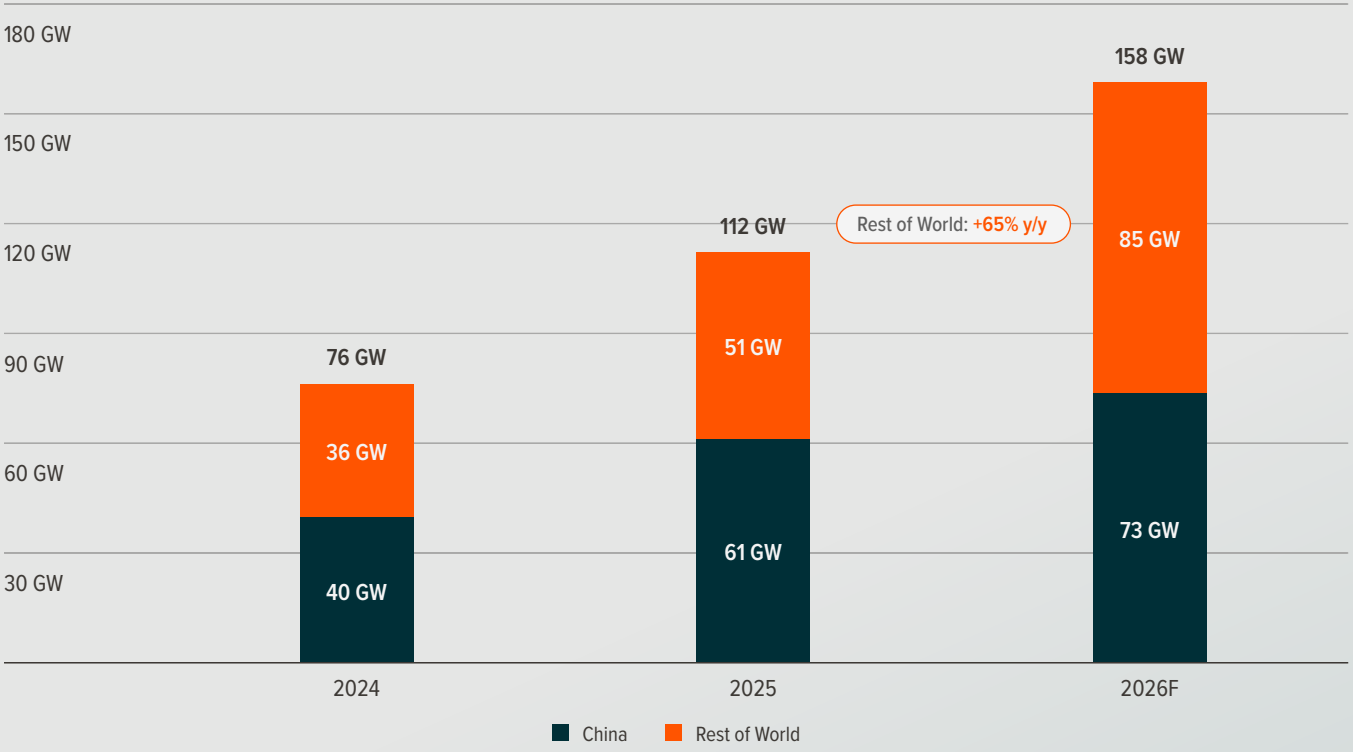
FIGURE 4: STORAGE TOOK FOUR YEARS TO GO FROM 10GW TO 100GW A YEAR. SOLAR TOOK EIGHT; WIND TOOK FIFTEEN.



Source: Global X ETFs illustration with information derived from BloombergNEF (May 2026). There is no guarantee that any trends observed in this material will continue. Any views and opinions are based on current market conditions and are subject to change.

The Battery Became Grid Infrastructure

FIGURE 5: ANNUAL ENERGY STORAGE ADDITIONS*



*Additions excluding pumped hydro. Note: 2024 split derived from BNEF growth rates. F = forecast. Source: Global X ETFs illustration with information derived from BloombergNEF (May 2026). There is no guarantee that any trends observed in this material will continue. Any views and opinions are based on current market conditions and are subject to change.

11x
Battery storage's installed capacity increase since 2021

112GW
Global battery storage additions as of 2025

$1.4trillion
Planned U.S. utilities battery investment through 2030

The Battery Became Grid Infrastructure

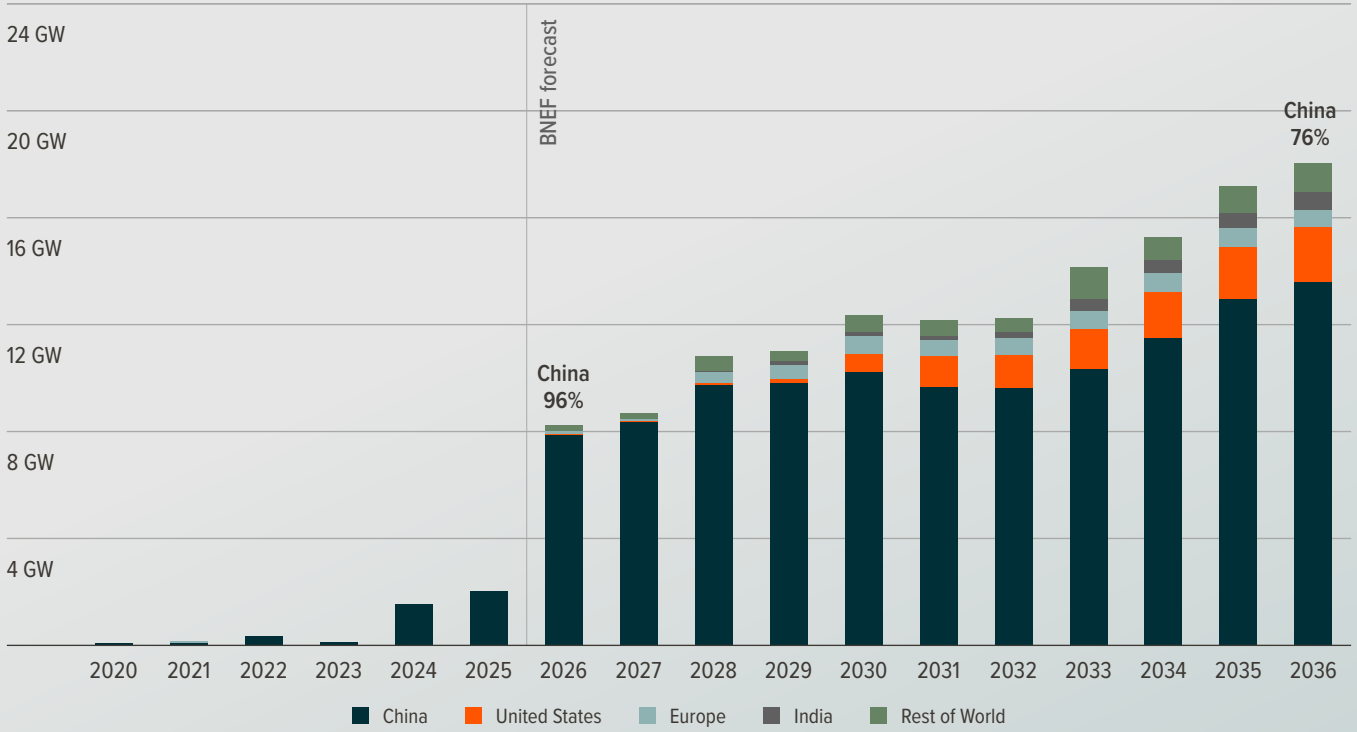
This grid demand emanates from utilities and grid operators against multi-year plans, for assets that run 15-20 years alongside shorter-term projects to fill acute power needs. Currently, China accounts for 96% of **long-duration** additions, with that number projected to fall to 76% by 2036 as the US, Europe and India scale their projects.[16]

96%

Percentage of long-duration additions that China currently accounts for

FIGURE 6: LONG DURATION STORAGE BY REGION/COUNTRY

ANNUAL LONG-DURATION ENERGY STORAGE NEW BUILD BY MARKET



Note: Excludes lithium-ion and pumped hydro. 2026 onwards forecast. Source: Global X ETFs illustration with information derived from BloombergNEF (October 2026). There is no guarantee that any trends observed in this material will continue. Any views and opinions are based on current market conditions and are subject to change.

Battery Innovation: Scale Decides Who Wins

Battery innovation only becomes impactful once it can be produced at scale, and that is where the industry's largest players are indispensable. Commercial viability demands vast manufacturing plants, secure supply chains and a customer base ready to buy in volume.

Increasingly, battery buyers are partnering with their suppliers to diversify battery applications. For example. Ford is entering grid storage under licence from CATL,[17] whilst Samsung SDI has partnered with BMW to test solid-state cells in their EVs.[18]

LFP (Lithium Iron Phosphate), today's dominant storage chemistry, became the market leader through manufacturing scale rather than a single breakthrough.[19]

> **"Increasingly, battery buyers are partnering with their suppliers to diversify battery applications."**

	Sodium-ion	Solid-state
What it is	Swaps lithium for abundant, low-cost sodium	Replaces the liquid electrolyte with a solid one
Why it matters	Less exposure to lithium supply; works from -40°C, suiting grid storage and cold climates[20]	Higher energy density and lower fire risk, suiting next-generation EVs
Who is scaling it	CATL, with around 70% of announced sodium-ion supply deals[21]	Samsung SDI, targeting mass production in the second half of 2027; CATL and BYD plan pilot production in 2027[22, 23]
Where it stands	Commercial: CATL began deliveries of sodium storage batteries in September 2026[24]	Pre-commercial: Samsung SDI is sampling cells with global customers[25]
The takeaway	A second chemistry for the leaders, not a threat to them	The race to commercialise is being run by the incumbents

Battery Innovation: Scale Decides Who Wins

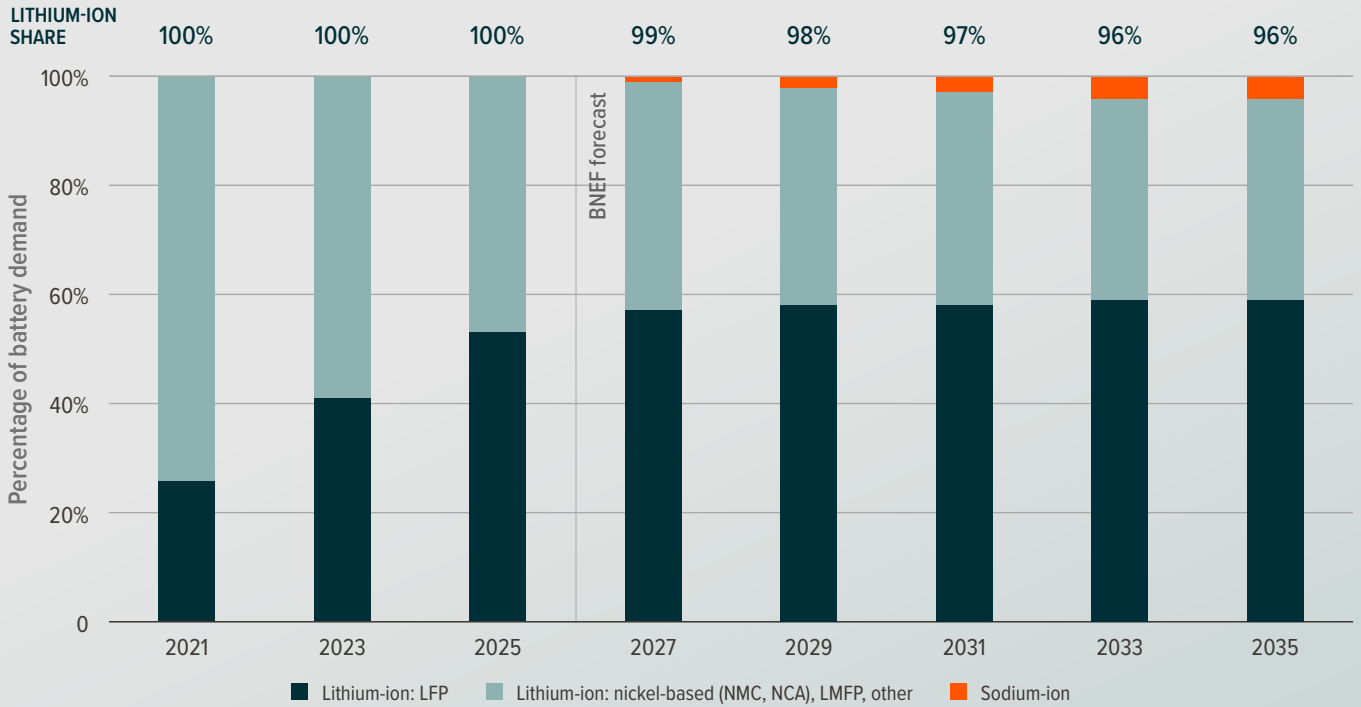
With sodium-ion capacity at about 6% of lithium-ion's[26] and solid-state mass adoption not expected before 2030,[27] lithium-ion's existing scale and supply chain depth leave it unchallenged in most current applications.

6%

Approximate percentage of sodium-ion capacity making up lithium-ion

FIGURE 7: BATTERY CHEMISTRY MIX: LITHIUM FORECAST TO BE DISPLACED ONLY AT THE EDGES

BATTERY CHEMISTRY MIX, PASSENGER ELECTRIC VEHICLES



Note: Note: 2027 onwards forecast. All chemistries except sodium-ion are lithium-ion. Source: Global X ETFs illustration with information derived from BloombergNEF (June 2026). There is no guarantee that any trends observed in this material will continue. Any views and opinions are based on current market conditions and are subject to change.

Footnotes

1 IEA (2026) ***Global EV Outlook 2026: Electric vehicle batteries.***
2 IEA (2026) ***Global Energy Review 2026: Technology, battery storage.***
3 Financial Times (October 2026) ***China's bigger, better batteries.***
4 BloombergNEF (May 2026) ***Energy Storage Enters the 100-Gigawatt Era: Three Things to Know.***
5 Edison Electric Institute (May 2026) ***Electric Companies to Invest $1.4T to Support Customers, Power Growth.***
6 Rho Motion / Benchmark Mineral Intelligence (January 2026) ***Global EV sales reach 20.7 million units in 2025, growing by 20%.***
7 IEA (2026) ***Global EV Outlook 2026: Electric vehicle batteries.***
8 BloombergNEF (May 2026) ***Energy Storage Enters the 100-Gigawatt Era: Three Things to Know.***
9 IEA (2026) ***Global EV Outlook 2026: Electric vehicle batteries.***
10 Ibid.
11 IEA (2026) ***Global EV Outlook 2026: Electric vehicle batteries.***
12 Benchmark Mineral Intelligence (September 2026) ***Global EV sales reach 1.8 million units in August 2026.***
13 BloombergNEF (May 2026) ***Energy Storage Enters the 100-Gigawatt Era: Three Things to Know.***
14 Albemarle Corporation (August 2026) ***Second quarter 2026 results and earnings call.***
15 IEA (2026) ***Global Energy Review 2026: Technology, battery storage.***
16 BloombergNEF (October 2026) ***China's New Five-Year Battery Plan Targets Tech Leadership.***
17 Financial Times (October 2026) ***China's bigger, better batteries.***
18 Korea JoongAng Daily (July 2026) ***Samsung SDI targets 2027 mass production of solid-state batteries as global clients praise safety.***
19 BloombergNEF (October 2026) ***China's New Five-Year Battery Plan Targets Tech Leadership.***
20 BloombergNEF (September 2026) ***Sodium-Ion Battery Outlook 2026: Building Momentum.***
21 BloombergNEF (September 2026) ***Sodium-Ion Battery Outlook 2026: Building Momentum.***
22 electrive (August 2026) ***CATL targets 2027 start for solid-state battery pilot production.***
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26 BloombergNEF (September 2026) ***Sodium-Ion Battery Outlook 2026: Building Momentum.***
27 electrive (August 2026) ***CATL targets 2027 start for solid-state battery pilot production.***

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