

SAIC Motor plans to begin mass production of solid-state batteries in 2027

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Chinese automaker SAIC Motor has announced that its battery technology partner Qingtao Power has achieved full-line commissioning of its all-solid-state battery production line in Anting, mainland China.



Source: Getty Images/vefimov

The company expects to produce sample cells by the end of 2025, followed by prototype vehicle testing in 2026, with the aim of mass commercial delivery by 2027.

SAIC had previously set technical targets for the new solid-state chemistry, including a gravimetric energy density of above 400 Wh/kg, a volumetric energy density of above 820 Wh/L, and single-cell capacities of over 75 Ah. These targets were disclosed in earlier communications and are reiterated in trade publications and technology summaries.

The company reported safety performance data, indicating that the cells passed nail-penetration tests and sustained exposure in a 200°C thermal chamber without igniting or exploding. Furthermore, low-temperature capacity retention exceeded 90%. These results are presented as laboratory and validation data linked to SAIC's development road map.

SAIC's involvement in solid-state development spans several years, including collaborative investment with Qingtao Energy, which led to the formation of a joint laboratory to accelerate development. Industry reports describe these early steps as part of a multiyear program to transition the technology from laboratory samples to vehicle use.

According to industry experts, the commercial success of solid-state batteries hinges on achieving repeatable mass-production yields, ensuring supply-chain readiness, and gathering real-world durability data from fleet testing.

Several other companies are also pursuing the commercialization of all-solid-state batteries. The GAC Group has established China's first large-capacity (60 Ah+) solid-state battery production line, with plans for mass production between 2027 and 2030.

Chery has unveiled a solid-state battery module with an energy density of 600 Wh/kg, aiming for pilot-vehicle use by 2026 and a broader rollout by 2027.

Battery-maker Sunwoda, backed by Li Auto, is developing a 400 Wh/kg cell with a projected range of 1,000 km and a lifespan of 1,200 cycles.

Meanwhile, CATL has indicated that mass-scale solid-state production may not occur until around 2030, despite ongoing research and development investment.

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CONTACTS

The Americas

+1 877 863 1306

Europe, Middle East & Africa

+44 20 7176 1234

Asia-Pacific

+852 2533 3565

www.spglobal.com/mobility

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