The vehicle battery recycling industry offers economic opportunities for Thailand

Press Release

Analysis by think tank Agora Verkehrswende recommends roadmap for closed-loop value chain by 2040 / Early action reduces dependence on volatile raw materials markets

28 October 2026. Thailand's economy can benefit from the recycling of vehicle batteries on an industrial scale if steps are quickly taken to establish this industry. This is shown in a discussion paper by the think tank Agora Verkehrswende that was prepared based on talks with Thai representatives from the fields of politics, business and academia. The paper, which was produced in collaboration with the German Oeko-Institut, outlines a roadmap with ten milestones for a closed-loop value chain leading up to 2040: These range from a system of extended producer responsibility anchored in a regulatory framework through to the gradual expansion of industrial recycling capacity.

Thailand's transition to electric mobility has gained significant momentum due to ambitious national goals. Forecasts indicate that, as a result of electrification, there will be a total of approximately 200,000 metric tons of end-of-life batteries by 2033. By 2043, the amount is expected to rise further to 2.5 million metric tons. At present, Thailand still lacks suitable battery recycling facilities.

Christian Hochfeld, Director of Agora Verkehrswende, sees the development of the battery recycling industry as a major opportunity for Thailand's economy: "Thailand has become one of the fastest-growing markets for electric vehicles in the world. These vehicles must be professionally collected and dismantled. This offers the opportunity to establish another high-tech industry in the country."

A recycling industry would also create skilled jobs, says Hochfeld. Furthermore, the risks associated with recycling currently carried out in the informal sector – such as fire hazards caused by improper handling – could be reduced, thereby better protecting people and the environment.

Extended producer responsibility makes recycling profitable

Economic feasibility is one of the key challenges for investments in battery recycling. The value of the recovered materials per battery, especially for lithium iron phosphate batteries, is low. According to experts, the market alone will not be able to close this gap.

The creation of a legal framework for batteries by 2030, including a system of extended producer responsibility, would assign clear responsibilities to manufacturers and importers of vehicle batteries, finance professional collection and handling and guarantee a net return for recycling companies. It is in this way that battery recycling in Thailand could become a viable investment opportunity.

Pilot plants and vocational training

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According to the roadmap, the first pilot plants for recovering the battery materials known as black mass are expected to begin operations by 2030. According to the study's estimates, sufficient quantities of black mass will be available for industrial-scale processing starting around 2035.

Building a qualified workforce – from safe collection and diagnostic testing through to hydrometallurgical processing and enforcement of regulations – takes longer than constructing the plants themselves. Training programs, university partnerships and applied research that is jointly developed by industry, universities and the government should therefore begin even before production is expanded.

Yannick Thoma, Senior Associate for Asia at Agora Verkehrswende, emphasises the urgency of the necessary steps: "Establishing systems for the disposal and recovery of batteries and the critical materials they contain requires years of targeted effort. At the same time, the amount of end-of-life batteries is set to skyrocket in the coming years. Now is the time to act, while the number of batteries is still manageable."

About the publication

The discussion paper was published under the title "Closing the loop on Thailand's electric vehicle batteries – A roadmap towards an electric vehicle battery recycling value chain through 2040". It is based on discussions in the area of battery recycling with Thai experts from the fields of politics, academia and industry. It was produced by Agora Verkehrswende in collaboration with Oeko-Institut as part of the Thai-German Cooperation on Energy, Mobility and Climate (TGC EMC) project, and can be downloaded here.

About TGC EMC

The Thai-German Cooperation on Energy, Mobility and Climate (TGC EMC) is a joint program of eight organisations and is funded by the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety. The implementing organisations are the German Agency for International Cooperation (GIZ), King Mongkut's University of Technology Thonburi (KMUTT), SGTech – Naresuan University, the Electric Vehicle Association of Thailand (EVAT), the Thai Renewable Energy Association – RE100, the Fraunhofer Cluster of Excellence Integrated Energy Systems (CINES), Agora Energiewende and Agora Verkehrswende.

A Thai version of the press release is available for download as a PDF below.

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