Battery life germany

Battery life germany

Fraunhofer Institute predicts Germany will produce batteries for 6.5 million electric cars in 2030.

When it comes to using electricity to power our lives, storage is just as important a question as generation. Green electricity is a vital source of power in the fight against climate change. This makes batteries essential for cars and all kinds of equipment which is not connected to the grid. Scientists predict that the market for lithium ion batteries will grow by over 10% a year until 2027. The world"s ten largest battery manufacturers are all currently based in Asia: six in China and three in South Korea. But Germany is also investing large amounts in battery technology. Production is being ramped up at pace, and in a few years one in four electric cars produced in Europe could be powered by a battery from a German factory.

The foundation for this is the success of the Federal Government"s umbrella strategy for battery research, says the Fraunhofer Institute for Systems and Innovation Research (ISI). According to the Federal Ministry for Education and Research, the concept provides a "strategic and policy funding foundation for all aspects of research into battery technologies with the goal of creating a competitive circular economy". On one level, research involves developing more efficient technology. According to Fraunhofer ISI, though, the strategy also focuses on developing manufacturing processes at scale in order to develop larger capacities.

In terms of capacity, batteries for electric cars are by far the largest mobile storage devices. Fraunhofer ISI predicts that annual manufacturing capacity for batteries in Germany will reach almost 400 gigawatt hours by 2030, which would provide batteries for 6.5 million cars at current levels. The leading manufacturers in Germany are the BASF chemicals group, the car makers Volkswagen, Mercedes, BMW and Porches, and other European companies such as Northvolt. The Federal Government is targeting support for consortia which involve several European states.

German battery energy storage system (BESS) project developer Tricera Energy has been able to build its business thanks to ‘second use’ battery modules from the country’s automotive sector, its COO told Energy-Storage.news.

The Dresden-headquartered company has a 120MWh pipeline of projects for delivery by the end of 2023 but had to come up with an alternative to sourcing batteries the traditional way, as COO Lars Fallant explained:

“We don"t order batteries from China because we are too small for them to be interested in working with us, or the price is too high, which is why we use second use batteries from the automotive sector.”

The company repackages battery modules into BESS units starting from 100kWh in size, which it sources from the country’s EV industry, one of the largest in the world. ‘Second use’ means

unused batteries, as distinct to ‘second life,’ which means repurposing of used vehicle batteries.

“Sometimes a production line will cease and there will be leftover battery modules we can use. Or, the automotive player makes more batteries than they need because of warranty agreements which were not exercised, and they don"t want to use "old" batteries in their new lines. Right now there is also a chip shortage which has meant a relative overproduction of batteries in some cases,” he said.

“In all these cases, they sell to us for a good price and these are our core supply of batteries. We also have a small supply of batteries from our shareholder, which is a forklift company that builds its own battery modules. A third supply source which is small for now, but which we want to grow, is second life or recycled batteries from the automotive sector. Again, we"ve started here with our shareholder.”

The main challenges with second use battery modules – module disassembly into the constituent cells would be too costly – are two-fold according to Fallant. First, you need to design your own battery management system (BMS). Tricera’s shareholder had an existing basic one that Tricera was able to build on.

The other challenge is the variability in the size and charge type of the modules being used, meaning the mechanical structure of the rack needs to be built flexibly enough to accommodate this.

Contact us for free full report

Web: https://kary.com.pl/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346