Tesla megapack history

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The Tesla Megapack is a large-scale rechargeable lithium-ion battery stationary energy storage product, intended for use at battery storage power stations, manufactured by Tesla Energy, the energy subsidiary of Tesla, Inc. Launched in 2019, a Megapack can store up to 3.9 megawatt-hours (MWh) of electricity.

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Using Megapack, Tesla can deploy an emissions-free 250 MW, 1 GWh power plant in less than three months on a three-acre footprint - four times faster than a traditional fossil fuel power plant of that size. Megapack can also be DC-connected directly to solar, creating seamless renewable energy plants.

The Tesla Megapack debuted as a 1.2 GWh storage project in PG& E territory in California, at Moss landing on Monterrey Bay. The project (which was approved in late 2018) uses 449 individual Megapacks. A battery system of this size can help utilities handle peak electricity demand and replace gas peaker plants that currently support the grid ...

Back in 2019, Tesla launched the Megapack; it was Tesla"s third stationary energy storage product after the Powerwall and Powerpack. A single Megapack unit is a container-sized "3 MWh battery ...

Launched in 2019, a Megapack can store up to 3.9 megawatt-hours (MWh) of electricity. Each Megapack is a container of similar size to an intermodal container. They are designed to be deployed by electric utilities. The energy stored can be used as required, for example during periods of peak electricity demand or when grid power is disrupted.

On April 30, 2015, Tesla announced that it would sell standalone battery storage products to consumers and utilities.[1] Tesla CEO Elon Musk stated that the company"s battery storage products could be used to improve the reliability of intermittent renewable energy sources, such as solar and wind.[1]

Prior to the Megapack launch, Tesla used its 200 kilowatt-hour (kWh) Powerpack energy storage product to meet the needs of utilities with large-scale storage requirements. During 2015 and 2016, Tesla deployed a combined 300 MWh of Powerwall and Powerpack technology, including an 80 MWh deployment of Powerpacks at the Mira Loma substation in Southern California.[2] In 2017, Tesla used Powerpacks to deploy 129 MWh of battery storage at the Hornsdale Power Reserve in South Australia,[3] the biggest deployment of lithium-ion grid battery storage in the world at the time.[4]

Design work, at Giga Nevada, began on the Megapack project at least as early as the first half of 2018.[5]

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In July 2019, Megapack launched.[6] It was described by Tesla as a utility-scale energy storage product, suitable for power stations and utilities.[6] Tesla claimed that Megapacks would be compatible with Tesla power station monitoring and energy control software, Powerhub and Autobidder.[6] The company stated that Megapack was designed to meet the needs of large-scale battery storage projects, as with the Hornsdale Power Reserve.[6]

Tesla acquired a former JC Penney"s distribution center in Lathrop, California, in 2021 and converted it into a battery plant called Megafactory,[7] with a target capacity of 40 GWh/year when finished.[8] Next-generation Megapacks use prismatic lithium iron phosphate cells,[9] for example in the 585 MWh Kapolei, Hawaii facility.[10]

Tesla"s record energy deployment was achieved in Q1 2023, adding 3.9 GWh in a single quarter, a 360% year-over-year increase.[11][needs update]