VOLKSWAGEN GROUP COMPONENTS

Medieninformation

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World premiere

Volkswagen presents: The first 'power bank' for the e-car

- → **Mobile quick charging station enables charging infrastructure where it is needed**
- → **Flexible use, independent of the power supply, is possible**
- → **Emission-free mobility: store wind or solar power and use it later**
- → **Maximum sustainability: e-car batteries receive a second life**

Wolfsburg – At the turn of the year, Volkswagen is presenting the company's future mobile quick charging station. It works according to the principle of a power bank, which is now familiar to most people with a smartphone. Independent of the power supply, it can be set up flexibly wherever electricity is needed for electric cars: in parking lots, at the supermarket or temporarily at a football match, for example. Up to four vehicles can be connected and charged at the same time – two of which with DC quick charging. The total charging capacity of up to 360 kWh is sufficient for an average of up to 15 electric vehicles. Thanks to quick charging technology, the charging process[1] only takes an average of 17 minutes. If the energy content of the installed battery set is less than 20 percent, the depleted charging station is simply exchanged for a charged one. If, however, it is permanently attached to the power supply with up to 30 kW via alternating current, the battery pack perpetually recharges itself. In case the charging process is based on renewable power supply, the charging station furthermore allows the temporary storage of sustainably generated power, such as solar or wind energy – and therefore CO_2-neutral mobility.

Power bank for electric cars – the mobile quick charging station by Volkswagen Group Components

The first mobile quick charging stations will already be set up in the first half of 2019 in Volkswagen's hometown as part of a pilot project, and will support the development of a charging infrastructure in the urban area. As of 2020, the charging station will also be used in other cities and communities.

Temporarily store green electricity and reduce the strain at peak charging periods

However, that's not all the mobile charging stations can do. The battery pack, which holds up to 360 kW, can be charged specifically with sustainable electricity, for example from solar or wind

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power. This clean electricity is temporarily stored in the charging station before ensuring CO_2-neutral mobility for the electric car. In addition, the possibility of temporarily storing energy can relieve the strain on the power supply at peak periods, for example, in the evening, when numerous electric car users connect their vehicle to the power supply to charge it up.

Second life for e-car batteries

The mobile charging station is an in-house development by Volkswagen Group Components. The goal is to develop a closed life cycle for the battery. For this reason, the battery set from the Volkswagen Group's Modular Electric Toolkit (MEB) is installed in the charging station. These vehicle batteries receive what could be called a second life through utilization in the charging station. This is because a battery loses charging capacity over time. If a vehicle battery has a defined, reduced residual capacity, it is exchanged. If this battery subsequently passes a thorough analysis, it can be reused in a mobile charging station. This sustainably reduces the use of valuable raw materials.

1) When charging to approx. 28 kWh. This corresponds to approx. 80 percent of the charging capacity of the current e-Golf.

[e-Golf: Power consumption in kWh/100 km: 14.1 to 13.2 (combined), CO_2 emissions in g/km: 0 (combined), efficiency class: A+]

About Volkswagen Group Component.

As of January 1, 2019, Volkswagen Group Components is an independent business unit under the umbrella of Volkswagen AG responsible for the development and manufacture of strategic components for the vehicle-producing brands of the Group. In five business areas – engine and foundry, gearbox and electric drive, chassis, seats and e-mobility – 80,000 employees work in 61 plants worldwide at 47 production sites. They develop and manufacture vehicle components, shape future topics such as charging infrastructure or battery recycling, and thus make a crucial and valuable contribution to the Volkswagen Group, its brands and products. The Chairman of the Board of Management of Group Components is Thomas Schmall.

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