

VDE Offers Support to Policy Makers and Industry as the Fast-Charging Network for Electric Trucks Is Rolled Out

More than 4,200 charging points, megawatt charging stations, and smart depot concepts: The rollout of the nationwide fast-charging network for electric trucks marks the start of one of the largest infrastructure projects in the transportation transition. VDE is supporting this rollout with expertise in standardization, testing, and energy system integration.

(Frankfurt am Main, September 23, 2026) The development of the fast-charging infrastructure marks the beginning of a crucial phase for the electrification of road freight transport in Germany. The VDE Association for Electrical, Electronic, and Information Technologies welcomes the announcement by the Federal Ministry of Transport that it will contribute approximately one billion euros to the development of a fast-charging network for electric trucks. As announced at the IAA TRANSPORTATION in Hanover, the location-specific installation of fast-charging stations will initially begin at 124 unmanned highway rest stops.

“The start of the implementation phase sends an important signal to vehicle manufacturers, logistics companies, and infrastructure operators. The market ramp-up will succeed if public charging points, company depots, and power grids are planned and implemented in a coordinated manner. The VDE supports policymakers and industry in this effort with systems expertise, standardization, testing, and a strong network of experts,” says Dr. Ralf Petri, Managing Director of VDE Mobility and VDE ETG.

Charging infrastructure is crucial for the deployment of electric trucks on long-haul routes

Numerous manufacturers unveiled new electric heavy-duty vehicles at IAA TRANSPORTATION. “The availability of sufficient charging infrastructure and grid capacity is

crucial to the success of electric trucks in long-haul transport,” Petri points out. The public fast-charging network is intended to enable short charging stops for in-transit charging as well as longer charging periods during rest periods along the highways. A significant portion of the energy supply for electric fleets will also take place at depots. “There, grid connections, charging infrastructure, fleet control, and energy management must be coordinated at an early stage,” explains Petri. Intelligent load management distributes the available power according to the vehicles’ departure times, routes, and charge levels. “Solar power and battery storage can transform the depot into an integrated energy and operations system,” Petri continues. “This makes the grid connection a strategic factor for fleet operators and logistics sites.” The VDE therefore views the charging of heavy-duty vehicles as a joint task for the mobility and energy sectors.

In the long term, more than 4,200 charging points are to be installed at approximately 350 locations. A large portion of these will utilize the Megawatt Charging System (MCS). MCS enables charging capacities that allow even heavy long-haul trucks to replenish sufficient energy to continue their journey within statutory rest periods. At the same time, these high charging capacities place new demands on electrical safety, connectors, cooling, and communication between the vehicle and the charging infrastructure. The DKE (German Commission for Electrical, Electronic, and Information Technologies), supported by the VDE, is involved in the international standardization of megawatt charging. DKE experts were involved, among other things, in drafting the recently published standard for direct current power supply equipment for megawatt charging systems (IEC 61851-23-3); the national implementation as DIN EN IEC 61851-23-3 is currently in progress. On the German side, the DKE/K 353 “Electric Road Vehicles” standards committee is responsible for this work.

“Megawatt charging must be designed to be safe and interoperable from the very beginning. International standards create a common technical foundation for this. The DKE contributes the requirements and experiences of German industry to this process,” explains Dr. Mahdad Mohammadi, standards manager at the DKE.

Business Practices at the VDE E-MOBILITY CONFERENCE

Representatives from industry, the energy sector, and research will discuss how megawatt charging, grid integration, and depot concepts can be implemented in practice at the 5th VDE E-MOBILITY CONFERENCE. On November 4 and 5 at the Coreum in Stockstadt am Rhein, sessions such as “Electric Commercial Vehicles & Truck Charging” and “Depot Charging for E-Trucks” will address topics including megawatt charging, grid integration, operational concepts, and cost-effectiveness.

Participants include Daimler Truck, CATL, Fraunhofer IVI, Westnetz, DHL, ABB E-Mobility, and other companies that will share their perspectives on development and operations.

Representatives from the relevant DKE standards committees will also be in attendance. The exchange between policymakers, the automotive industry, logistics, the energy sector, grid operators, research, and standards bodies is intended to help accelerate the transition from individual projects to a scalable infrastructure.

Further information: [VDE E-MOBILITY CONFERENCE 2026](#)

About DKE

The DKE German Commission for Electrical, Electronic & Information Technologies (DKE) is the national platform for about 10,000 experts from industry, science and public administration to elaborate standards and safety specifications for electrical engineering, electronics and information technology. Standards support global trade and, among other things, the safety, interoperability and functionality of products and systems. As a competence centre for electrotechnical standardization, the DKE represents the interests of German industry in European (CENELEC, ETSI) and international standardization organizations (IEC). In addition, the DKE provides comprehensive services in the field of standardization and VDE specifications.

For more information, visit www.dke.de

About the Power Engineering Society within VDE (VDE ETG)

The Power Engineering Society within VDE (VDE ETG) promotes the development of energy systems in Germany. It combines expertise in the generation, storage, transmission and distribution of electrical energy and the relevant interdisciplinary technologies, as well as the many different ways in which this energy is used. Integrated into the VDE interdisciplinary network, ETG is a widely recognized and respected technical and scientific association. The volunteer experts create a common platform for knowledge exchange in science and industry, contribute to accelerating the energy transition and to promoting an understanding of sustainable energy technology in society, and identify areas of action for policymakers. ETG connects people, different generations, start-ups and established institutions, science, business and society with performance and energy.

For more information, visit www.vde.com/etg

About VDE

VDE, one of the largest technology organizations in Europe, has been regarded as a synonym for innovation and technological progress for more than 130 years. VDE is the only organization in the world that combines science, standardization, testing, certification, and application consulting under one umbrella. The VDE mark has been synonymous with the highest safety standards and consumer protection for more than 100 years.

Our passion is the advancement of technology, the next generation of engineers and technologists, and lifelong learning and career development “on the job”. Within the VDE network more than 2,000 employees at over 60 locations worldwide, more than 100,000 honorary experts, and around 1,500 companies are dedicated to ensuring a future worth living: networked, digital, electrical. Shaping the e-dialistic future.

The VDE (VDE Association for Electrical, Electronic & Information Technologies) is headquartered in Frankfurt am Main. For more information, visit www.vde.com

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