PRESS

2024/003
18.01.2024

DKE Bluepaper: Digital pioneering work for the energy transition

- **Guidance for political decision-makers, authorities and companies**
- **Bluepaper based on the VDE-AR-E 2829-6 series published in 2020 on the digitalization of the energy transition**
- **Enabling effective data exchange between customer systems and grid operators**

(Frankfurt a. M., 18.01.2024) In a new bluepaper, the German Commission for Electrical, Electronic & Information Technologies DKE addresses the benefits of application rules for the secure exchange of information between customer installations and grid operators. The bluepaper is based on the VDE-AR-E 2829-6 series, which has been instrumental in driving forward the digitalization of the energy transition and is now used in numerous series products - from wallboxes and photovoltaic systems to heat pumps.

Standardized and effective communication for the digital grid connection

The increasing share of renewable energies and the advancing electrification are placing new demands on communication between the various players with different technical backgrounds. Effective communication requires not only standardized data exchange, but also that the communication partners support the same use cases and communication processes. To be successful and future-proof, such a communication interface must meet various key requirements such as easy installation on site, security for critical infrastructures or reliability. The VDE-AR-E 2829-6 series meets all these requirements and ensures that the communication interface at and behind the grid connection point is standardized.

This also applies to the requirements resulting from the regulations of §14a EnWG published by the BNetzA at the end of November 2023 for the grid-side control of customer systems such as wallboxes, heat pumps, air conditioning systems, battery storage and energy management systems. In addition, the VDE application rule describes solutions for the use of dynamic electricity tariffs and time-variable grid end charges. It therefore also fulfills the requirements of

VDE Verband der Elektrotechnik Elektronik Informationstechnik e. V.
V.i.S.d.P. Head of Brand, Marketing and Communication: Thomas M. Koller
Merianstraße 28
63069 Offenbach am Main
www.vde.com
presse@vde.com

the guideline TR-03109-5 just published by the BSI for the secure connection of customer systems to the smart meter gateway.

Alexander Nollau, Head of the Energy Department at the DKE: "The exemplary mention of VDE-AR-E 2829-6 in the specifications of the BNetzA and BSI shows how legal requirements and standardization work can work together to bring the common good and industry interests together."

Setting incentives for innovation, basis for conformity assessments

The DKE Bluepaper is intended to provide political decision-makers with a comprehensive overview of the importance of a standardized communication interface for energy control in the context of the energy transition. Companies can use it to understand and respond to the market potential of standardized communication interfaces. The bluepaper defines a common technical framework to facilitate data exchange between different actors in the energy transition. It also presents a data model that can be flexibly adapted to different use cases, from charging stations to stationary battery storage systems.

The series is currently being supplemented by a test description that can be used as a basis for conformity assessments for §14a. The standardization work that led to VDE-AR-E 28296-6 is based on the preliminary work of the EEBus-initiative. This consortium of numerous companies and associations is developing a communication standard for energy-related devices and systems and has submitted the results of its work to the relevant DKE committees. Peter Kellendonk, Chairman of the EEBus-initiative, comments: "The standard presented in the Bluepaper makes an active contribution to the success of the energy and transport transition. The VDE-AR-E 2829-6 series is the key to the successful digitalization of the energy transition. It sets new standards for flexibility, safety and broad applicability. This should be recognized with the publication now presented."

The full bluepaper "Communication interface for energy control - The practical use of the VDE AR 2829-6 series" can be found here.

About EEBus

Together with its member companies and associations, the EEBus Initiative e.V. is developing a communication standard for energy-related devices and systems. The standard covers the entire chain from the grid operator and energy supplier to the end device (such as heat pumps, charging stations, battery storage systems, PV inverters and white goods). As a registered, non-profit association, the EEBus-initiative ensures that the results from its working groups and the scientific and research findings are transferred to the EEBus-specification and subsequently to the national (DKE, FNN) and international (CEN, Cenelec, ETSI, IEC and ISO) committees.

About DKE

The DKE German Commission for Electrical, Electronic & Information Technologies (DKE) is the national platform for about 9000 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 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

Press contact: Vanessa Rothe, Phone +49 170 7645316, presse@vde.com