



BSI Education

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...making excellence a habit.™

Standards and energy

Driven by the need to limit climate change whilst fostering sustainable growth, the way we produce, distribute, use and trade energy is changing. A decline in renewable energy costs, digitalisation and smart technologies are some of the key enablers behind this transformation.

In the UK, the need to establish a whole-system approach to energy generation, distribution, storage and use, based on seamless integration of local networks, interoperability, stability and flexibility of the grid, is also a driver for what is described as the 'energy revolution'.

Standards play a vital role in supporting these changes, and enabling the shift to a smart, flexible, low-carbon, and interoperable energy system.

What BSI does

- ✓ We maintain vast portfolios of energy, oil and gas standards to support safety, grid stability and security of energy supply
- ✓ Our stakeholder collaborations support the delivery of government policies and help industry meet regulatory targets
- ✓ Our strategic standardization programmes for emerging markets and innovations help drive sustainable growth and meet ambitious policy, industry and societal commitments
- ✓ Working with the energy sector, we deploy flexible standards development mechanisms to create best practice, keeping pace with fast-changing technology and commercial innovations

Key standards for a smart, flexible, low-carbon energy system

Electrotechnical

BS 5918 Solar heating systems for domestic hot water. Code of practice for design and installation
BS EN 61400-1 Wind turbines. Design requirements
PD IEC/TS 62600-100 Electricity producing wave energy converters. Power performance assessment
BS EN 62446-1 Photovoltaic (PV) systems. Grid connected systems

Electric vehicles and EV charging

PD IEC TS 61980-2:2019 Electric vehicle wireless power transfer (WPT) systems
PD ISO/TR 8713 Electrically propelled road vehicles. Vocabulary
BS IEC/TS 61851-3 series Electric vehicle charging system

Electrical energy storage

BS IEC 62933 series Electrical energy storage (EES) systems
PAS 7062 Electric vehicle battery cells – Health and safety, environmental and traceability considerations in cell manufacturing and finished cell – Code of Practice [in development]
PAS 7061 Batteries for vehicle propulsion electrification – safe and environmentally conscious handling of battery packs and modules – Code of practice [in development]
PAS 7060 Health, safety and environmental considerations in [EV] Vehicle design and use – Guide [in development]

Energy use and efficiency

BS EN ISO/IEC 13273-2 Energy efficiency and renewable energy sources. Common international terminology. Renewable energy sources

BS EN ISO 50001:2011 Energy management system requirements

BS EN 16231 Energy efficiency benchmarking methodology

BS EN ISO 14001 Environmental management systems

Grid/supply

BS EN 50160 Voltage characteristics of electricity supplied by public electricity networks

BS EN 61850 series Communication networks and systems for power utility automation

BS EN 62488 series Power line communication systems for power utility applications

Smart homes and businesses

BS EN 50491 series Home and building electronic systems (HBES) and building automation and control systems (BACS)

PD CEN/CLC/ETSI TR 50572:2011 Functional reference architecture for communications in smart metering systems

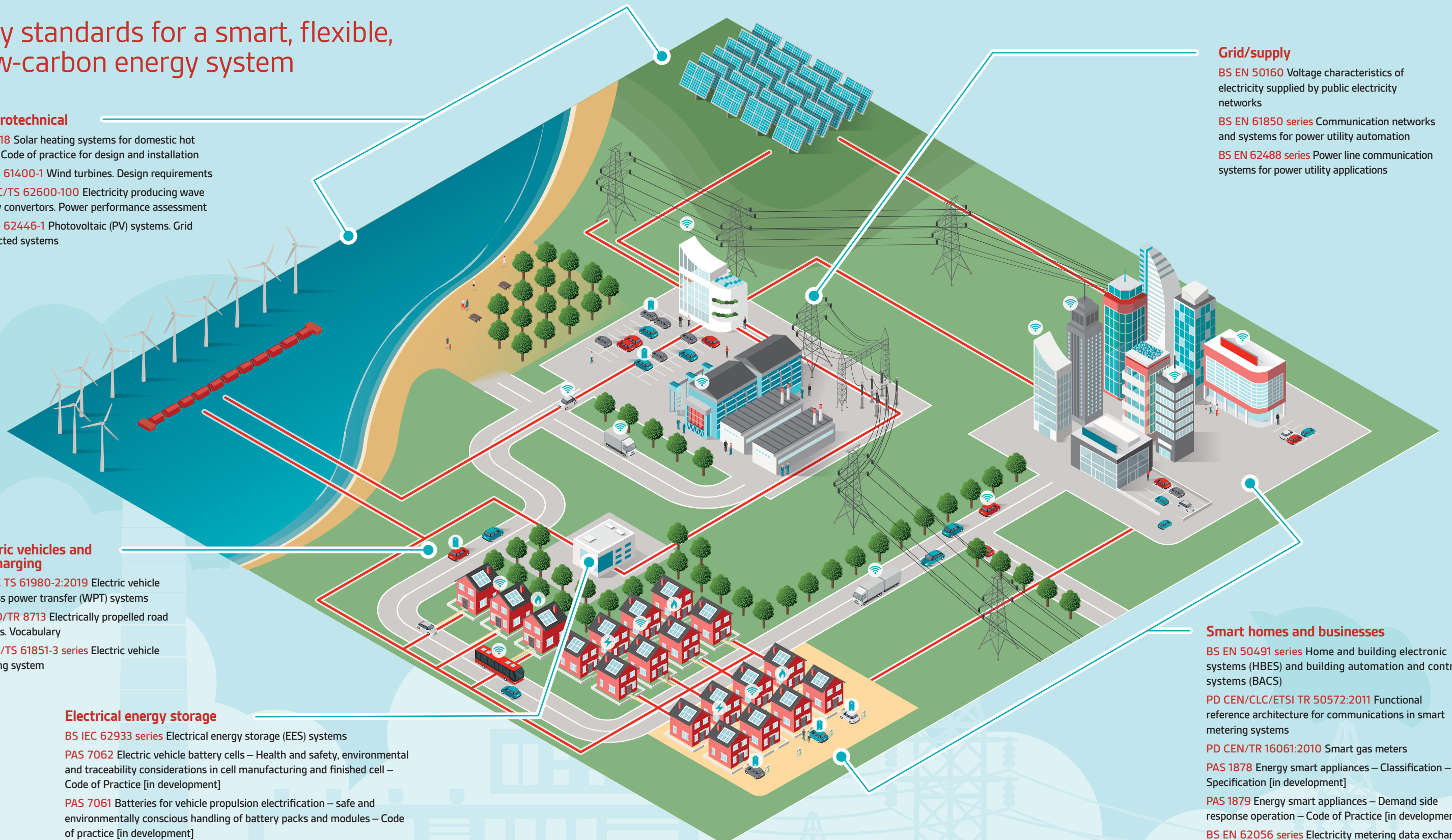
PD CEN/TR 16061:2010 Smart gas meters

PAS 1878 Energy smart appliances – Classification – Specification [in development]

PAS 1879 Energy smart appliances – Demand side response operation – Code of Practice [in development]

BS EN 62056 series Electricity metering data exchange

BS 18477 Inclusive service provision



About BSI Education

Universities make a significant contribution to standardization by teaching about standards, contributing academic research and being standards-makers. BSI Education builds relationships and creates programmes with universities to help raise awareness of the benefits of standards to society and the economy and to encourage and increase participation in standards-making.

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Find out more

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