

White Paper from International Electrotechnical Commission (IEC) assesses the worldwide needs, benefits, policies and preconditions for Global Energy Interconnection

Geneva, Switzerland, 16 February 2017 – Energy is central to nearly every major challenge and opportunity the world faces. However, **one fifth of the world population still lacks access to energy** and 3 billion people rely on wood, coal or animal waste for cooking and heating. Today, sustainable energy and climate change are big global concerns.



The interconnection of grids would open up an unprecedented opportunity to globally share the resources of the whole planet, bringing clean energy to everybody, everywhere in the world.

Global Energy Interconnection

Global energy interconnection (GEI) is technically highly complex. It will require a level of dependability never seen before. International Standards inherently contain solutions that will help pre-address this complexity and they will play a crucial role in mastering dependability upfront.

This White Paper aims to assess the worldwide needs, benefits, policies and preconditions for GEI. It examines the readiness of potential markets and identifies technical and business trends as well as hurdles. The White Paper analyzes and compares several global transmission scenarios and evaluates their impact on energy supply, the environment, technologies, and policies, as well as standards development.

Last but not least, this White Paper will provide recommendations on how standardization for such a large system of systems will need to be conducted and which stakeholders have to be involved.

Dr. Hu Hao, Senior Project Manager, International Cooperation Department, State Grid Corporation of China, states ***“To achieve the ambitious concept of global energy interconnection (GEI) or large scale, regional, intercontinental interconnection, requires political vision and a worldwide collaborative effort. Drawing up GEI concepts at an early stage by a consensus based process and through close cooperation between researchers, industry, regulators and standardization bodies is one of the central requirements for success of the implementation of the concept.”***

The full White Paper was developed by the IEC Market Strategy Board ([MSB](#)) with major contributions from the International Energy Agency ([IEA](#)) and State Grid Corporation of China ([SGCC](#)). The 77 page White Paper can be downloaded from:

<http://www.iec.ch/whitepaper/pdf/iecWP-globalenergyinterconnection.pdf>