

ISGAN TCP Annex6

Power Transmission and Distribution Systems

Improve understanding of Smart Grids

Annex 6 on Power Transmission & Distribution Systems has as main objective to [establish a long term vision for development of the future sustainable power systems](#). The focus is on system-related challenges, and on the technologies, market solutions, and policies that contribute to the development of system solutions.

The work of Annex 6 promotes solutions that enable power grids to maintain and improve the [security, reliability and quality of electric power supply](#) while facing challenges related to significant trends in the industry, such as: expanding electrification to unserved areas, renewable energy sources and distributed generation, customer participation, aging infrastructure and emerging real-time information technology systems.

Focus areas

- Market models: architectures and clearing mechanisms
- Coupling of day ahead markets and real time platforms
- Planning of T&D Networks
- Pricing and tariffs

Expansion Planning and Market analysis



- HVDC & HVAC lines, cables and substations
- Measurements and digitalization
- End user tools
- Scenarios



Technology Trends and Deployment

Policy & Regulations

System Operation and Security



- WAMS
- Operational monitoring and control, balancing control and security analysis
- Real time markets for balancing control and demand side participation

Transmission and Distribution System Interaction



- TSO - DSO interaction challenges
- Role of new markets in TSO-DSO interaction
- ICT and data exchange requirements
- Regulatory requirements

Main goals

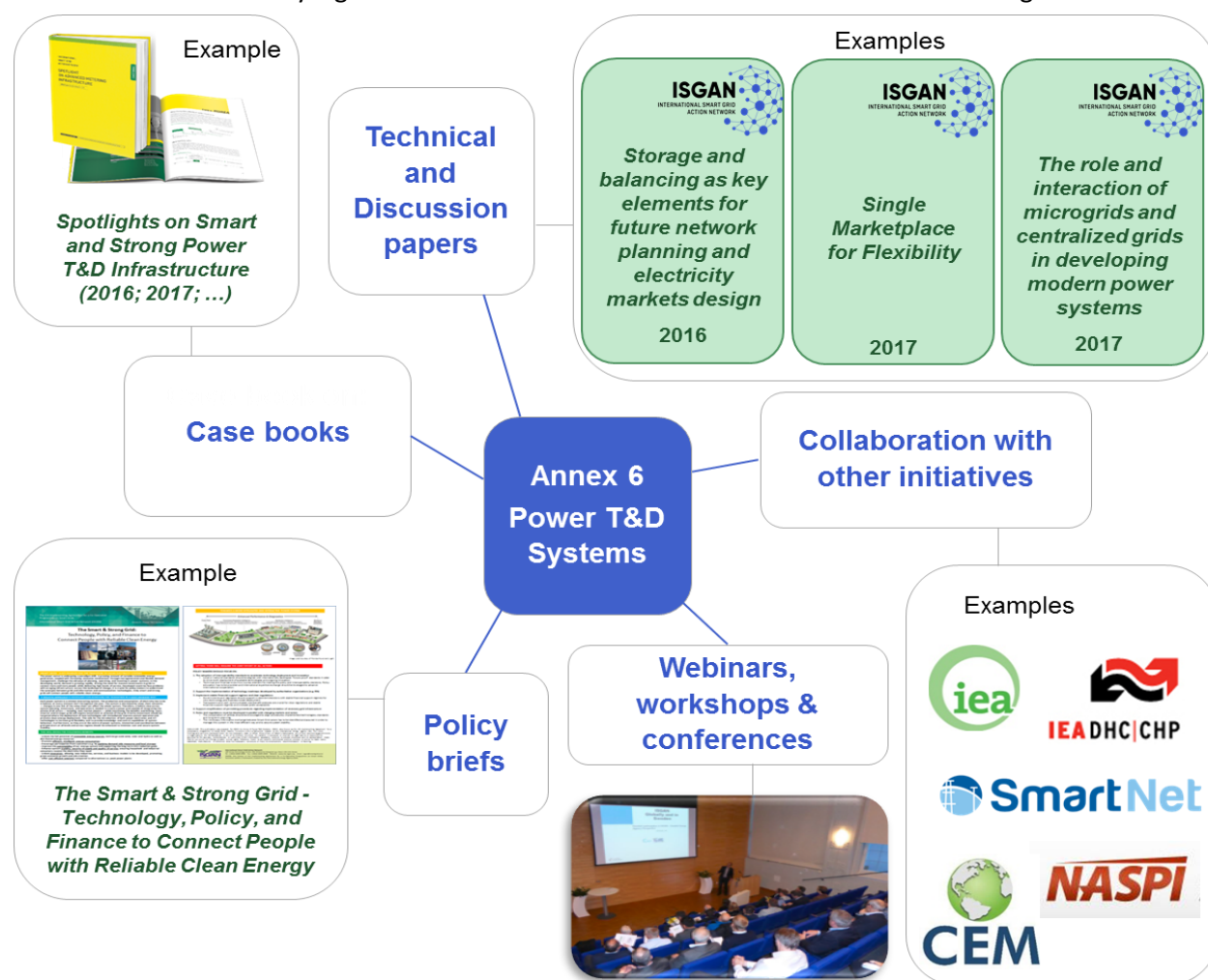


Annex 6 consist of efforts to **improve understanding of Smart Grid solutions** applicable to or influencing the power system performance, transmission capacities and operation practices.

Annex 6 intends to support an **accelerated development and deployment of Smart Grid technologies and market solutions**, and promote adoption of enabling regulatory and governmental policies.

Global network of experts

The work is carried out by a global network with results disseminated at different strategic levels.



Contact details

ISGAN Annex 6 is supported by national experts from 15 countries all over the world.

For further information, see www.iea-isgan.org or contact us directly:



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