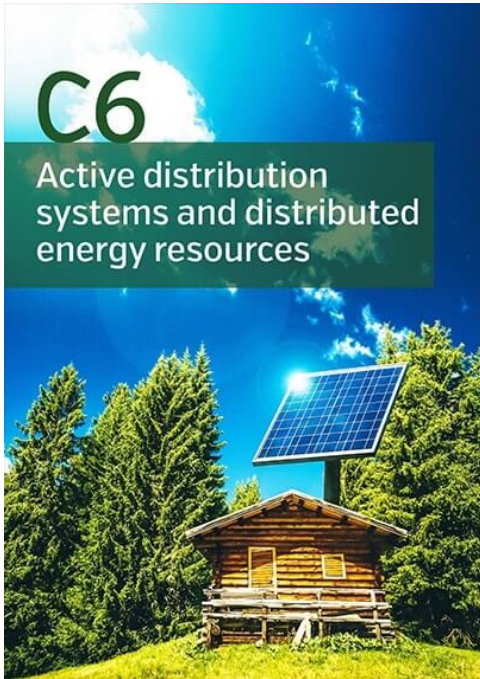


# C6 - Active distribution systems and distributed energy resources



## Mission

Assessment of the technical impacts resulting from a more widespread adoption of DER applications on planning and operation and on approaches, and of enabling technologies and innovative solutions for DER integration in active distribution systems.

## Within this framework additional specific areas of attention include:

- > Enabling technologies for renewable and distributed energy resource integration and application: active network management, microgrids, virtual power plants, distribution management systems (DMS, ADMS, DERMS), DER monitoring and control, aggregation systems and platforms, block-chain applications.
- > Innovative solutions for DER and distribution technology deployment: smart inverters and power electronic interfaces, interconnection and integration requirements, MV/LV DC supply systems, distribution system modernization.
- > Storage technologies: deployment of various storage technologies such as electrochemical electric battery energy storage systems, flywheels, flow batteries, and new storage
- > Multi-energy solutions (including thermal storage), Power2X applications (including power to heat, power to gas), electric vehicles.
- > New approaches to configure new distribution systems for enhanced reliability and resilience: islandable grid connected microgrids, power exchange between microgrids.
- > New approaches to determine the impact and plan and operate distribution systems in the context of a wide deployment of DER, including the analysis of hosting capacity and protection
- > Consumer integration and empowerment: demand side integration and participation, demand response, load management, smart load, new customer sectors such as electric vehicles, smart home and smart meter applications with impact on distribution systems.
- > Smart cities: integrated distribution system technologies, power, control, and information and communication technology deployment for flexibility, integration of multi-energy systems.

- > Rural Electrification: islanded power systems and individual customer off-grid systems, new solutions, weak grid connected systems.

### Working groups

View a list of CIGRE's current working groups including for C6 [here](#).

## Publications

View all publications for [Study Committee C6 on eCIGRE](#)

### Key contacts



**Chair**  
**Kurt DEDEKIND**



**Secretary**  
**Evert DE HAAN**



**Communications Officer**  
**Evert DE HAAN**