

African Electrotechnical Standardization Commission

# Overview of IEC TC 57



**AFSEC**

# **Power systems management and associated information exchange**

To prepare international standards for power systems control equipment and systems including EMS (Energy Management Systems), SCADA (Supervisory Control And Data Acquisition), distribution automation, teleprotection, and associated information exchange for real-time and non-real-time information, used in the planning, operation and maintenance of power systems.

Power systems management comprises control within control centres, substations and individual pieces of primary equipment including telecontrol and interfaces to equipment, systems and databases, which may be outside the scope of TC 57.

# Power systems management and associated information exchange

The special conditions in a high voltage environment have to be taken into consideration.

Note 1: Standards prepared by other technical committees of the IEC and organizations such as ITU and ISO shall be used where applicable.

Note 2: Although the work of TC 57 is chiefly concerned with standards for electric power systems, these standards may also be useful for application by the relevant bodies to other geographical widespread processes.

Note 3: Whereas standards related to measuring and protection relays and to the control and monitoring equipment used with these systems are treated by TC 95, TC 57 deals with the interface to the control systems and the transmission aspects for teleprotection systems. Whereas standards related to equipment for electrical measurement and load control are treated by TC 13, TC 57 deals with the interface of equipment for interconnection lines and industrial consumers and producers requiring energy management type interfaces to the control system.

# IEC TC 57 working groups

- WG 3 – Telecontrol protocols
- WG 10 – Power system IED communication and associated data models
- WG 13 – Energy management system application program interface (EMS-API)
- WG 14 – System interfaces for distribution management (SIDM)
- WG 15 – Data and communication security

# IEC TC 57 working groups

- WG 16 - Deregulated energy market communications
- WG 17 - Communication systems for distributed energy resources (DER)
- WG 18 – Hydroelectric power plants – communication for monitoring and control
- WG 19- Interoperability within TC 57 in the long term
- WG 20 - Planning of (single-sideband) power line carrier systems (IEC 60495, IEC 60663)

# Principle IEC TC 57 standards

TC57 WGs	Principle IEC standards
3	60870
10, 17 and 18	61850
13	61970
14	61968
15	62351
19	62445
20	62488 [60495; 60663]
16	62325

# IEC TC 57 publications

There are currently some 125 publications issued by TC 57: Mostly multipart standards

The most 'high profile' series of standards

IEC 60870 – Telecontrol protocols

IEC 61334 – Distribution automation using distribution line carrier systems

IEC 61968 – System interfaces for distribution management

IEC 61970 – Energy management system interfaces

IEC 61850 – Substation automation

IEC 62325 - Framework for energy market communications

IEC 62351 - .... Data and communications security

Nearly all parts have stability dates in the range 2012 to 2015. An opportune period for AFSEC TC 57 to get involved