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SMB/3946/DC

2009-02-04

INTERNATIONAL ELECTROTECHNICAL COMMISSION

STANDARDIZATION MANAGEMENT BOARD

SUBJECT

Proposal from the Swedish NC to establish an SMB Strategic Group *on Low Voltage Direct Current (LVDC) distribution systems*

BACKGROUND

The Swedish NC briefly introduced a proposal to set up an SMB Strategic Group on LVDC distribution systems up to 1500 DC in relation to energy efficiency at SMB meeting 134 in Seoul.

The proposal received support from some members and it was agreed that it be submitted to NCs for input to the Swedish NC which will then submit a final proposal for SMB consideration at the SMB at its June 2009 meeting 135.

The following committees may also be concerned with the SE proposal and are on copy:
Concerned IEC TCs/SCs on the TC 23 project *Electrical accessories for electrical installation for d.c.*: TC 23, SC 23A, SC 23B, SC 23C, SC 23E, SC 23F, SC 23G, SC 23H and SC 23J, TC 64, TC77, TC89, TC109, TC112.

For information which can have consequences on their work and products: TC13, TC17, SC17B, SC17D, TC21, TC22, SC 22E, SC32B, SC32C, TC34, TC35, SC48B, TC61, TC62, TC69, TC72, TC79 TC82, TC96, TC105, TC108, TC110.

For general information on the proposed new project TC8, TC16, TC20, TC65, TC101, TC106.

ACTION

IEC NCs and SMB members are therefore invited to submit input on the attached proposal to Anders Elrud anders.elrud@elstandard.se, with copy to the SMB Secretariat Joyce Lacroix, jl@iec.ch, before 2009-04-30.

LVDC distribution systems

In the present discussion on Energy Efficiency different issues have been brought forward. One is the possible reduction of power losses. Recently an intense debate on using low voltage DC distribution system to minimize conversion losses in electronic equipment using DC for power supply e.g. in Data Centers and ICT Centers. There are today many product committees having standards for electrical accessories, equipment and devices for DC, not only internally but intended to be used in DC systems. At the moment there is, however, no overall coordination on the use in the systems and equipment. LVDC installations are treated by TC 64 in the general requirements. We do have established applications as in control circuitry and (uninterrupted) power supplies.

We feel there is a need to have a global systematic approach on LVDC distribution in order to get a harmonized strategy and view. Therefore we propose to establish a Strategic Group "LVDC distribution systems". The SG should have the task to properly align and coordinate all necessary activities and to ensure an integral approach in standardization concerning the design, operation and life cycle of LVDC distribution systems.

The final outcome should be compiled in a report giving a summary on the status of standardization in this field including a study and listing of existing Committees and standards. It should report on the state of the art and draw up clear recommendations and a roadmap towards prospective standardization projects to be initiated in order to fill any potential gaps identified by the group. A short background, the status now and the importance of the future global cooperation in this project should be presented and the need for new standardization projects identified. A guidance of best practice should be developed regarding the reduction of network losses in the distribution system.

The SG is not aimed to issue normative documents however the results will be fed into normative work.

There is a big hurry to bring forward standards/guides on electrical accessories, equipment and systems for the dc market as there are application problems.