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	2015-08-28

INTERNATIONAL ELECTROTECHNICAL COMMISSION

STANDARDIZATION MANAGEMENT BOARD

SUBJECT **SMB meeting 154, agenda item 7.1, Minsk**

Final report of SEG 1 *Smart Cities* in response to SMB/5583A/CC and SMB/5617/DL

BACKGROUND

IEC/Systems Evaluation Group 1 Smart Cities submits its final report and recommendations for approval by the SMB for the October 2015 meeting (SMB meeting 154) in Minsk. SEG 1 held 4 face to face meetings and multiple teleconferences since December 2013 to formulate its report. SEG 1 has not scheduled any additional plenary meetings.

The report includes 3 parts:

Part A – SEG 1 recommendations submitted to the SMB meeting 154 for formal approval: A1, A2, and A3

Part B – SEG 1 final report adhering to Annex SP to ISO/IEC Directives IEC Supplement, June 2015, for information and discussion.

Note: The proposal for new field of technical activity is also to be submitted separately to the IEC/SMB for its meeting 154.

Part C – Annexes A thru H (*for information*)

ACTION

SMB members are invited to approve three recommendations submitted in Part A of the report, using the IEC Technical Server, **before 2015-09-25**. The Standardization Management Board is invited to note Parts B and C of the report.

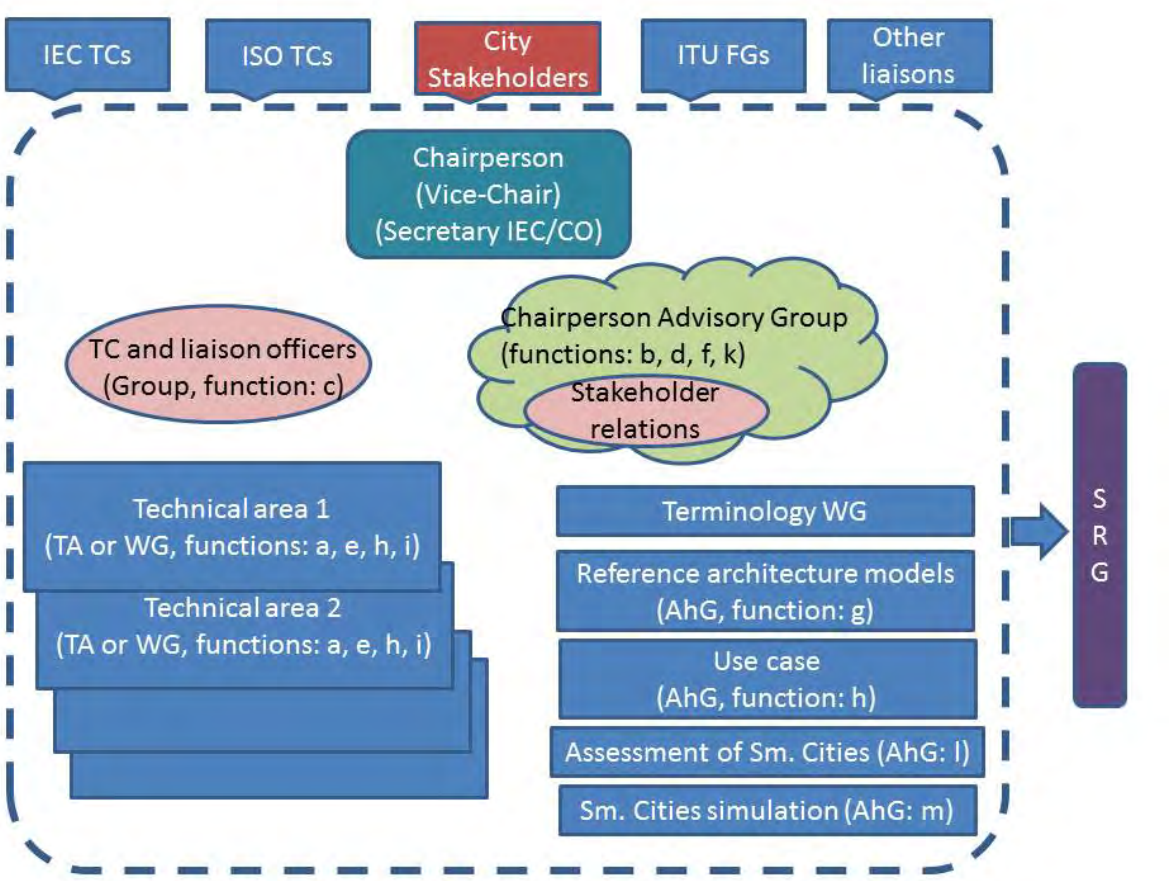
Item 1: A1 - Establishment of a Systems Committee (SyC) on Electrotechnical aspects of smart cities

Item 2: A2 – Proposed following title *IEC/SyC "Electrotechnical aspects of smart cities"* and scope described in Part A

Item 3: A3 - SMB disband SEG 1

The possible functions, which each entity under the proposed IEC/SyC should achieve, are explained in Table A.1.

The proposed IEC/SyC is expected to develop electrotechnical system-level standards across the silos of ordinary TCs/SCs. Therefore, for the moment, an organizational structure without Subcommittees would be more appropriate.



Note: Final structure to be approved by SyC P-members

Figure A.1 - Recommended structure of the proposed IEC/SyC

Table A.1 - Recommended functions of the proposed IEC/SyC

	Functions (What?)	Who?
a)	Develops Systems Standards	TA or WGs
b)	Recommend IEC/TCs, /SCs to develop standards (trough SMB or TC officers as SyC members)	CAG
c)	Maintain relationship and information exchange with external organizations to the SyC (IEC/TCs, other SDOs, initiatives)	Group of TC officers & liaison officers
d)	Maintain relationship and information exchange with users of the standards (city stakeholders)	CAG
e)	Road test standards in real cities	TAs or WGs
f)	Develop and maintain the Strategic Business Plan of the SyC	CAG
g)	Develop and maintain reference architecture model and standards mapping tool for smart cities in collaboration with SRG	Start as AhG
h)	Collect and analyze use cases	Start at AhG (supplementary) TAs or WGs (specific areas)

- IEEE Smart Cities Initiative
- CEN/CENELEC/ETSI Smart and Sustainable Cities and Communities Coordination Group (SSCC-CG)

Also, SEG 1 suggests establishing liaisons between city relevant international organizations.

Regarding the liaisons within IEC, the following table is suggested:

Table B.2 - Proposed list of TCs to be liaised with the proposed IEC/SyC

TCs	Titles
TC8	System aspects for electrical energy supply
SC8A	Grid Integration of Large-capacity Renewable Energy (RE) Generation
TC21 + SC	Secondary cells and batteries
TC35	Primary cells and batteries
TC36	Insulators for substations
TC45 + SC	Nuclear instrumentation
TC48 + SC	Electrical connectors and mechanical structures for electrical and electronic equipment
TC56	Dependability
TC57	Power systems management and associated information exchange
TC59 + SC	Performance of household and similar electrical appliances
TC61 + SC	Safety of household and similar electrical appliances
TC62 + SC	Electrical equipment in medical practice
TC64	Electrical installations and protection against electric shock
TC65 + SC	Industrial-process measurement, control and automation
TC69	Electric road vehicles and electric industrial trucks
TC72	Automatic electrical controls
TC77 + SC	Electromagnetic compatibility
TC79	Alarm and electronic security systems
TC81	Lightning protection
TC82	Solar photovoltaic energy systems
TC88	Wind turbines
TC99	System engineering and erection of electrical power installations in systems with nominal voltages above 1 kV a.c. and 1,5 kV d.c., particularly concerning safety aspects
TC100	Audio, video and multimedia systems and equipment
TC103	Transmitting equipment for radio communication
TC105	Fuel cell technologies
TC106	Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure
TC110	Electronic display devices
TC111	Environmental standardization for electrical and electronic products and systems
TC114	Marine energy - Wave, tidal and other water current converters
TC115	High Voltage Direct Current (HVDC) transmission for DC voltages above 100 kV
TC117	Solar thermal electric plants
PC118	Smart grid user interface
TC120	Electrical Energy Storage (EES) Systems
TC122	UHV AC transmission systems
JTC1 SC25	Interconnection of information technology equipment