



Why IEC Standards Work Is Important to My Company

Presented by:
USNC Communications and
Continuing Education Committee and ANSI





Moderator

Kevin Lippert, Manager of Codes and Standards, Eaton Corporation

Speakers

Phil Piqueira, Global Standards Leader, GE Industrial Solutions

Alec McMillan, Director of Global Standards and Trade,
Rockwell Automation

Jim Matthews, Director of Technical Standards and Standards Policy,
Corning Incorporated

Presentation Areas



1. *Introduction - Kevin Lippert*
2. *USNC/IEC - Phil Piqueira*
 - *The USNC & IEC and how they help improve the quality of products and services covered by their standards*
3. *Technical Aspects - Alec McMillan*
 - *How can organizations help develop and maintain the technical work of IEC Standards to represent their best interests*
4. *Strategic Objectives - Jim Matthews*
 - *Establishing influence in global markets via active participation in the standardization of current and future technologies*



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USNC/IEC



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What is the IEC?



- The International Electrotechnical Commission is the leading global organization that publishes consensus-based International Standards and manages conformity assessment systems for electric and electronic products, systems and services, collectively known as electrotechnology.
 - IEC publications serve as a basis for national standardization and as references when drafting international tenders and contracts.



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What Is the USNC?



- United States National Committee
 - Official U.S. member to the IEC and related regional standardization bodies
- Represents the interests of the U.S. eletrotechnical industry before its international counterparts in the standardization arena
- Committee of the American National Standards Institute (ANSI)



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Membership on the USNC Council

Industry / Companies

Corning Incorporated
Dell Inc
Eaton Corporation
FM Approvals
General Electric
Hubbell Inc
Intertek
Pass Seymour/Legrand (NEMA)
Philips Healthcare
Qualcomm
Rockwell Automation
Schneider Electric
Siemens Industry Inc
Sony Electronics Inc
SCS Consulting (IEEE)
The Boeing Company (ECC Corp)
Thomas & Betts (NEMA)
Underwriters Laboratories

Organizations

CSA Standards
Consumer Electronics Association
ECC Corporation
Institute of Electrical and Electronic Engineers
Electronic Components Industry Association
National Electrical Manufacturers Association
National Fire Protection Association
Telecommunications Industries Association

Government

Food and Drug Administration
National Institute of Standards and Technology
U.S. Department of Defense

Other

U.S. Representative IEC Conformity Assessment Board
Virginia Tech University (Consumer Advocate)



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What Does the USNC/IEC Do?



- Serves as the U.S. point of contact for industry, government, consumers, academia, and others stakeholders in the eletrotechnical industry
- Represents U.S. interests before the IEC and selected international electrotechnical fora
- Provides guidance to ANSI's Board of Directors on policy issues and procedures involving the electrotechnical industry
- Promotes active engagement between domestic and international standards organizations to encourage cooperation as needed
- Allows unlimited participation in any of the nearly 150 USNC-approved U.S. Technical Advisory Groups (TAGs)



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Technical Activities



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177 Technical Committees (TC) and Subcommittees (SC)



- A/V and multimedia
- Alternative energies
- Assembly technology
- Capacitors and resistors
- Connectors
- E-Mobility
- Electric cables
- Electroacoustics
- Fibre optics
- Industrial process automation
- Information technology
- Nanotechnology
- Power systems management
- Railway equipment and systems
- Safety of household appliances
- Smart Grid
- Solid electrical insulating materials
- Renewables



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Leadership and Guidance for USNC Technical Activities



- USNC/IEC Officers
- USNC/IEC Council Members
- Technical Management Committee (TMC)
- Conformity Assessment Policy Coordinating Committee (CAPCC)
 - USNC/IECEE
 - USNC/IECEX
 - USNC/IECEQ
- Technical Advisory Groups (TAGs)
 - Group Managers
 - Technical Advisors
 - Deputy Technical Advisors
 - TAG Administrator
 - TAG Secretary
 - TAG Members
 - Experts (WG, PT, MT)



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USNC Committees



- **USNC Technical Management Committee (TMC)**
 - The USNC Technical Management Committee is responsible for ensuring the proper and expeditious development of technical work
- **USNC Conformity Assessment Policy Coordination Committee (CAPCC)**
 - Coordinates USNC positions on Electrotechnical Conformity Assessment (CA) issues which are specifically related to or impact the IEC global agenda.



USNC Technical Advisory Groups (TAGs)



- USNC-approved TAGs develop the U.S. positions on technical - and certain policy - issues under consideration within the IEC Technical Committee structure
- U.S. TAGs are *mirror committees* of IEC TCs and SCs
- TAGs provide the delegates who will represent the United States in TC/SC discussions at IEC meetings and also the experts who will serve on WGs, PTs, and MTs



The USNC at Work



- IEC Standards and Conformity Assessment services offer
 - market access
 - global awareness
 - technology transfer
 - business efficiency
- Every year **hundreds of U.S. experts participate** in IEC meetings, directly affecting the development of international standards



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Strategic Areas



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Importance of Global Cooperation and Collaboration



- Active participation in both international and regional standards-setting activities provides U.S. electrotechnical industry experts with . . .
 - an opportunity to influence domestic and international policy
 - an opportunity to benefit from unique networking opportunities and learn from international colleagues
 - a forum for the presentation of U.S., corporate or, perhaps, personal positions
 - an opportunity to comment upon proposals submitted by others



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Regional Standards Coordination



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New Technical Committees (TCs)



Examples of the most recently established IEC TCs



- [TC 113](#) Nanotechnology standardization for electrical and electronic products and systems
- [TC 114](#) Marine energy - Wave, tidal and other water current converters
- [TC 115](#) High Voltage Direct Current (HVDC) Transmission for DC voltages above 100kV
- [TC 116](#) Safety of hand-held motor-operated electric tools
- [TC 117](#) Solar Thermal Electric Plants
- [PC 118](#) Smart Grid User Interface
- [TC 119](#) Printed Electronics



Hot Button Issues



- **Electrotechnology for Mobility**
 - New Strategic Group to manage and coordinate standardization work for E-Mobility
 - Investigate all interactions between plug-in electric vehicles and electricity supply infrastructure
- **China**
 - Fast becoming a major player in the international standards arena and a vital contributor with which you will interface
- **Renewable Energies**
 - IEC international standards for technical performance and safety
 - Certification schemes



In Summary



- The USNC and its members participate in approximately 90% of IEC Technical Committees and Subcommittees
- Every year, hundreds of U.S. delegates participate in USNC and IEC activities, directly affecting the development of International Standards
 - The USNC operates over 150 IEC Technical Advisory Groups (TAGs)
 - Over 1,500 experts are currently involved in IEC activities in the U.S.



How to Get Involved



- Individual TAG participation (currently \$295 a year)
 - ANSI membership is not required
- ANSI members (companies, organizations, and government agencies) can become USNC Voting Members for an annual fee of \$6,450
 - Individual TAG participation fees are waived for any employee of that company, organization, or agency
- Buy from ANSI - When you purchase IEC standards from ANSI, you are making a commitment to bolster U.S. leadership at the IEC table



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Thank you

And remember...

The World Runs on Standards!



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Background/Reference



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USNC Participating Members (Annual Fee)



Agilent Technologies
Apple Inc
Cooper Power Systems
Corning Incorporated
Dell Inc
Eaton Corporation
ECC Corporation
Emerson Electric
FM Approvals
Food and Drug Administration
General Electric
Hubbell Inc
Intertek

National Electrical Manufacturers Association
National Institute of Standards and Technology
Pass Seymour/Legrand
Philips Healthcare
Qualcomm
Rockwell Automation
Schneider Electric
Siemens Industry Inc
Sony Electronics
Telecommunications Industries Association
Underwriters Laboratories
U.S Department of Defense
U.S. Coast Guard



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USNC Members and ANSI - Opportunities to Participate



ANSI members may become voting members of the USNC upon determination of material interest, provided they are also

- organizations serving as TAG Administrators and/or TC/SC Administrative Secretariats and having paid the requisite fees

OR

- entities which have expressed interest in participating in the USNC and have paid the USNC Organizational fee



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USNC Mission

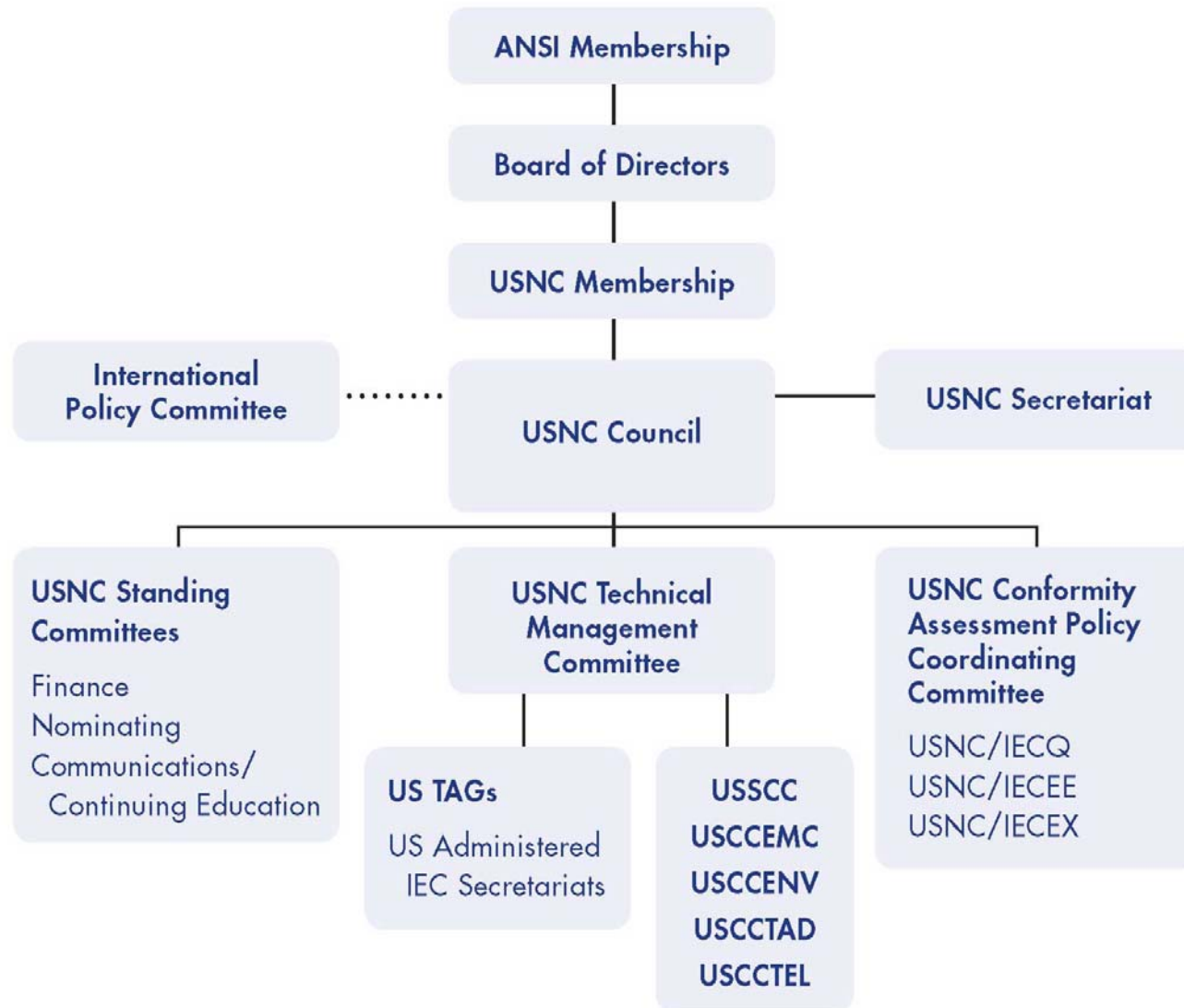


*To provide strategy to **effectively participate** in the development of IEC standards to **facilitate international trade** for the benefit of the U.S. industry in the fields of all electrotechnologies, and to **provide a framework to the U.S. industry**, which serves as the focal point, conduit, and advocate for U.S. interests in international and regional electrotechnical standards, conformity assessment, and other related matters*



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USNC/IEC Organization Structure



IEC Membership

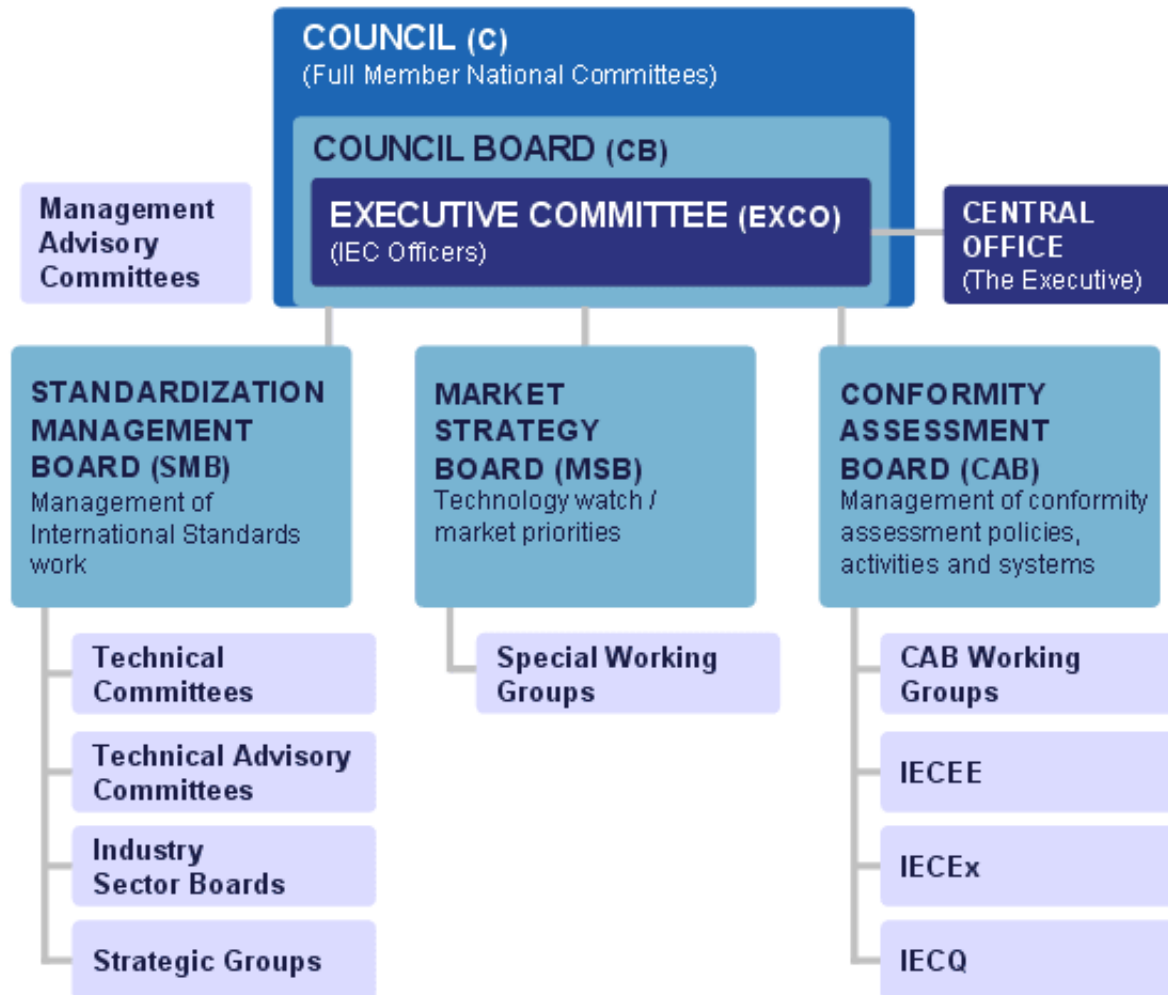


- 60 Full National Committee Members
- 21 Associate Members
- 82 Affiliates
- 163 Countries in the IEC Family



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IEC Structure



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IEC Standardization Management Board (SMB)



- Manages the technical work through TC/SC reports/Strategic Policy Statement (SPS) and data prepared by IEC Central Office
- Reviews the functioning of TC/SCs and proposed changes
- Approves nominations for Chairpersons and Secretariats of TCs and SCs
- Creates/disbands new TCs, ratifies creation/disbanding of new SCs
- Develops rules for standards development process
 - *ISO/IEC Directives* and the *IEC Supplement*
- Reports to the Council Board



IEC Conformity Assessment Board

Responsible for evaluating and maintaining, as necessary, the IEC conformity assessment systems



- [IECEE](#) - System for Conformity Testing and Certification of Electrical Equipment



- [IECQ-CECC](#) - System for Quality Assessment of Electronic Components and Associated Materials and Processes.



- [IECEX](#) - System for Certification to Standards for Safety of Electrical Equipment for Explosive Atmospheres.



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USNC in IEC Policy and Management Activities



- U.S. is **one of six** permanent Council Board members
 - 15 members total
- U.S. is **one of twelve** elected Conformity Assessment Board (CA) members
- U.S. is **one of seven** permanent Standardization Management Board (SMB) members
 - 15 members total

