# IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

#### **SCOPE: RENEWABLE ENERGY**

IECRE covers design, performance, and safety for a wide variety of equipment and components used in renewable energy (RE) technology and project development, including the wind turbine, solar photovoltaic (PV), and marine energy sectors. IECRE Certification Bodies (RECBs) and Test Laboratories (RETLs) are engaged in the peer assessment process to ensure mutual recognition of all System deliverables. The IECRE strives to ensure that components or devices tested in one member country will not have to be retested in another, if the relevant national differences have been taken into account. As a result, approval and certification at the national level (i.e., market entry) are greatly facilitated while perceived risk is significantly reduced.

#### **IECRE Certificates Will Improve Confidence**

As the RE industry continues to grow, IECRE Certificates and deliverables (Test Reports, Conformity Statements, etc.) will serve as proof of compliance to consensus-based International Standards. Investors, insurers, and project developers will be more confident funding the installation of RE equipment carrying an IECRE Certificate.

### **USNC/IECRE**

A USNC Standing Committee operating under its own rules of procedure, the USNC/IECRE has liaison, Ex-official non-voting membership on the USNC/IEC Council and keeps the Council informed of activities in its area of responsibility. The USNC/IECRE coordinates its activities with the other Systems in the U.S. by actively participating in CAPCC, and serves as the U.S. Member Body of the IECRE. The committee coordinates with relevant U.S. Certification Bodies (CBs) and Test Laboratories (TLs) to assure that national differences on standards accepted for use in the IECRE System are uniform for all CBs in the U.S.; to provide a structure that is open to all stakeholders; and to processes applications for submission to the Secretariat of the IECRE. The USNC/IECRE develops the U.S. viewpoint and comments on all matters pertaining to the IECRE, among other activities.

#### **GET INVOLVED**

USNC/IECRE Secretariat: American Renewable Energy Standards and Certification Association (ARESCA); Secretary, George J. Kelly (secretary@aresca.us)





American National Standards Institute www.ansi.org/usnc

# USNC/IEC, ANSI, and CAPCC

#### An Introduction

The International Electrotechnical Commission (IEC) is a 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.

The U.S. National Committee of the International Electrotechnical Commission (USNC/IEC) serves as the focal point for U.S. interests in international electrotechnical standards, conformity assessment, and other related matters. As the nation's representative to the IEC, the USNC also serves as the conduit for all U.S. technical and policy contributions into the IEC system and related regional standardization organizations such as the European Committee for Electrotechnical Standardization (CENELEC), the Pan American Standards Commission (COPANT), and the Pacific Area Standards Congress (PASC).

The USNC is an integrated committee of the American National Standards Institute (ANSI). ANSI is a private, non-profit organization whose mission is to enhance U.S. global competitiveness and the American quality of life by promoting, facilitating and safeguarding the integrity of the voluntary standards and conformity assessment system. ANSI provides administrative support to the USNC and its nearly 2,000 managerial, engineering, scientific, and professional participants.

# The 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. The CAPCC has the responsibility to ensure that, when such issues are identified, USNC consensus positions are developed and represented in appropriate national, regional, and international CA groups.

#### MORE INFORMATION

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An Introduction to

# IEC Conformity Assessment Systems

in the **United States** 

# **IEC CONFORMITY ASSESSMENT SYSTEM SCHEMES** and USNC ENGAGEMENT

# IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components



IEC System for Certification to
Standards Relating to Equipment for Use in Explosive Atmospheres





#### SCOPE: ELECTRICAL EQUIPMENT -**SAFETY AND PERFORMANCE**

IECEE covers safety and performance for a wide variety of equipment and components used in homes, offices, workshops,

healthcare facilities, and more. IECEE Certification Body (CB) Test Certificates are mutually recognized by all IEC members. A product that has been tested in one member market will usually not have to be retested in another, if the relevant national differences have been taken into account. As a result, approval and certification at the national level is greatly facilitated.



#### **IECEE Certificates Open Markets**

In some countries, IECEE CB Test Certificates and Test Reports are accepted as proof of compliance to regulatory requirements. As a result, many retailers, buyers, and vendors

are happy to import electrical goods carrying an IECEE Test Certificate.

# **USNC/IECEE**

A USNC Standing Committee operating under its own rules of procedure, the USNC/IECEE has liaison, Ex-official non-voting membership on the USNC/IEC Council and keeps the Council informed of activities in its area of responsibility. The USNC/IECEE coordinates its activities with the other Systems in the U.S. by actively participating in CAPCC, and serves as the U.S. Member Body of the IECEE. The committee coordinates with relevant U.S. National Certification Bodies (NCBs) to assure that National Differences on standards accepted for use in the IECEE System are uniform for all NCBs in the U.S.; to provide a structure that is open to all stakeholders; and to processes applications for submission to the Secretariat of the IECEE. The USNC/IECEE develops the U.S. viewpoint and comments on all matters pertaining to the IECEE, among other activities.

#### **GET INVOLVED**

USNC/IECEE Secretary: c/o National Electrical Manufacturers Association T: 703.841.3267 E: joel.solis@nema.org



#### **SCOPE: HAZARDOUS ENVIRONMENTS**

IECEx covers the highly specialized field of explosion protection associated with the use of equipment in areas where flammable gases, liquids, and combustible dusts may

be present. This system provides assurance that equipment is manufactured to meet safety standards and that services such as installation, repair, and overhaul comply with IEC International Standards on safety.

#### IECEx Is Recognized by the UN

The United Nations, via the United Nations Economic Commission for Europe (UNECE), recommends the IEC and IECEx as the world's best practice model for the verification of conformity to International Standards. UNECE published a "Common Regulatory Framework" encompassing the use of IEC International Standards developed by IEC TC Technical Committee (TC) 31, Equipment for explosive atmospheres, with proof of compliance demonstrated by IECEx.

# **USNC/IECE**x

A USNC Standing Committee operating under its own rules of procedure, the USNC/IECEx has liaison, Ex-official non-voting membership on the USNC/IEC Council and keeps the Council informed of activities in its area of responsibility. The USNC/IECEx coordinates its activities with the other Systems in the U.S. by actively participating in CAPCC, and serves as the U.S. Member Body of the IECEx. The committee coordinates with relevant U.S. Ex Certification Bodies (ExCBs) to assure that National Differences on standards accepted for use in the IECEx System are uniform for all ExCBs in the U.S., and to processes applications for submission to the Secretariat of the IECEx System. The USNC/IECEx develops the U.S. viewpoint and comments on all matters pertaining to the IECEx, among other activities.

#### **GET INVOLVED**

USNC/IECEx Secretary: c/o National Electrical Manufacturers Association T: 703.841.3267 E: joel.solis@nema.org



# SCOPE: ELECTRONIC COMPONENTS, PROCESSES, AND MATERIALS

IECQ ensures the safety and reliability of electronic components used in the IT industry, avionics, and more. IECQ's dedicated

schemes issue Component Certificates providing verification of compliance with specifications; and Process Certificates providing assurance that related processes maintain the integrity of components, including Electrostatic Discharge Management (ESD) for sensitive devices.

In addition, IECQ operates dedicated Schemes for avionics as used by airframe manufacturers to assess and control suppliers. And the IECQ Hazardous Substance Process Management Scheme (HSPM) for electronic components and related materials used in electrical and electronic equipment provides assurance that Hazardous Substance Free (HSF) requirements are met throughout the supply chain.

#### **USNC/IECQ**

A USNC Standing Committee reporting to CAPCC, the USNC/IECQ serves as the U.S. member of the IECQ. The USNC/IECQ coordinates with relevant U.S. Certification Bodies (CBs), processes applications for U.S. CBs, and develops the U.S. viewpoint and comments on all matters pertaining to the IECQ, among other activities.

#### **GET INVOLVED**

USNC/IECQ Secretariat: Electronic Component Certification Corporation (ECCC)

Secretary: Don Baker E: dbaker@ctrends.com