



Report to WTO TBT Committee

May 2020

The following organizations are mentioned in this report:

AFSEC	African Electrotechnical Standardization Commission
BSI	British Standards Institution
COPANT	Pan American Standards Commission
CSN	Commonwealth Standards Network
INNOQ	Instituto Nacional de Normalização e Qualidade (Mozambique)
NSI	Namibian Standards Institution
UZSTANDARD	Agency for Standardization, Metrology and Certification (Uzbekistan)

The following IEC acronyms are used in this report:

ACAS	IEC Affiliate Conformity Assessment status
ACB	IEC Academy & Capacity Building
ACP	IEC Affiliate Country Programme
CAB	IEC Conformity Assessment Board
IEC-AFRC	IEC Africa Regional Centre
IEC-APRC	IEC Asia-Pacific Regional Centre
IEC-LARC	IEC Latin America Regional Centre
NC	National Committee
NEC	national electrotechnical committee
NSB	national standards body
SMB	Standardization Management Board
TC	technical committee
WIC	workshop for industrializing countries

IEC activities in least developed, developing and newly industrializing countries

January 2020 – April 2020

This report to the WTO TBT Committee highlights the activities of the IEC and its regional offices, IEC members and countries participating in IEC Affiliate Country Programme, related to the support given to least developed, developing and newly industrializing countries to participate in, and gain value from, IEC international standardization and conformity assessment activities.

IEC collaboration with the WTO

In the late 1990s, the WTO challenged international organizations to find ways to support least developed and developing countries in:

- implementing international standards as a basis for national or regional standards or regulations (WTO Technical Barriers to Trade Agreement)
- increasing participation in international standardization activities

In response, the IEC created the Affiliate Country Programme (ACP) in 2001 to enable non-IEC member developing countries, to take part in IEC International Standards development, and global conformity assessment activities, within the terms of the IEC ACP, but without any membership financial obligations.

The IEC ACP has evolved over the years and has progressively added new features and benefits for affiliate countries that surpass the initial challenge set by the WTO. Today, the ACP includes a wide range of learning and competency building programmes in international standards development, conformity assessment and national quality infrastructure, with local assistance through its regional centres and mentoring programme.

As a result of the WTO challenge, many developing countries that became IEC affiliates, and successfully completed the programme, have since become valuable IEC members.

Through the activities undertaken by its central office and regional centres, the IEC continues to pursue its close collaboration with the WTO TBT Committee and advance the goals of the challenge.

IEC standardization work to facilitate access to electricity

The IEC is active in developing international standards and technical specifications relating to rural electrification and electricity access. This work is handled by the following three committees: [IEC SyC LVDC](#), systems committee on low voltage direct current and low voltage direct current for electricity access; [IEC TC 82](#), technical committee on solar photovoltaic (PV) energy systems; and [IEC TC 64](#), technical committee on electrical installations and protection against electric shock.

TC 64 recently published a technical specification dedicated to rural electrical installations based on PVs for remote locations not connected to the grid: [IEC TS 61200-102:2020](#), *Electrical installation guide – Part 102: Application guidelines for low-voltage direct current electrical installations not intended to be connected to a public distribution network*.

IEC Regional Centres activities and regional collaboration

The IEC has regional administrative offices, located on 6 continents. IEC activities with least developed, developing and newly industrialized countries are primarily managed through three regional centres located in Nairobi, Kenya, Singapore and São Paulo, Brazil in coordination with the IEC Central Office in Geneva, Switzerland.

The IEC seeks to enhance knowledge and competencies within affiliate countries so they can reap the benefits of international

standardization and conformity assessment and become active participants in the IEC community.

IEC Africa Regional Centre

The IEC Africa Regional Centre ([IEC-AFRC](#)), located in Nairobi, Kenya, is the IEC regional focal point for Africa with the aim of promoting awareness about the IEC and increasing the implementation of IEC International Standards and Conformity Assessment Systems. The IEC supports regional participation in its activities regardless of the individual country's level of commitment.

Due to the Covid-19 pandemic, which has resulted in event cancellations and travel bans, IEC-AFRC Regional Directors were unable to attend and report on events between February to April 2020.

IEC Asia-Pacific Regional Centre

The IEC Asia-Pacific Regional Centre ([IEC-APRC](#)), based in Singapore, is the focal point for the IEC in the region, helping to promote awareness, increase the use of IEC International Standards and Conformity Assessment Systems and enhance participation in IEC activities. In addition, IEC-APRC provides support to IEC technical committees and subcommittees.

Similarly, IEC-APRC was unable to attend and report on any events between February to April 2020, due to events cancellations and subsequent travel bans in the context of the Covid-19 pandemic.

IEC Latin America Regional Centre

The IEC Latin America Regional Centre ([IEC-LARC](#)), located in São Paulo, Brazil, is the focal point for IEC activities in Latin America. It promotes awareness of IEC work, encourages the adoption of IEC International Standards and Conformity Assessment Systems, and advocates participation and membership by countries in the region.

On 18 March, IEC-LARC held the first online training course for members of [COPANT](#) with the objective of increasing the level of knowledge about the IEC and its process for producing international standards as well as to facilitate the participation of countries and their stakeholders. The course was attended by 21 individuals from 12 countries.

IEC Affiliate Country Programme

The IEC Affiliate Country Programme ([ACP](#)) is aimed at assisting least developed and developing countries that do not yet have the necessary infrastructure and technical expertise to participate fully in IEC activities as an IEC member. Participants join the programme, free of charge, on invitation from the IEC General Secretary & CEO.

The ACP offers an efficient and well-organized programme designed to develop appropriate knowledge and competencies. Participants benefit from a quota of free IEC International Standards, online e-learning materials, webinars, standardized and customized training, capacity building events, mentoring arrangements, as well as personalized support from the IEC Central Office and its regional centres.

Uganda joins as a new IEC member

Earlier this year, Uganda became the latest affiliate country to become an IEC associate member following an active participation in the IEC ACP since 2001. Within the terms of the programme, Uganda ordered 388 IEC publications and declared the national adoption of 269 IEC International Standards. Uganda signed both the ACAS Pledge and ACAS Declaration in 2018.

→ 173 countries are currently part of the IEC family: 62 full members and 26 associate members. There are currently 85 affiliate countries of which 59 have established a national electrotechnical committee (NEC).

Update on participation

Since our last report, the [Uzbekistan](#) NEC has selected 11 IEC technical committees and appointed one expert to each of them. The Uzbek NEC is primarily constituted of private sector representatives, professionals and teaching institutions, governmental groups, consumer associations, as well as power generation and distribution authorities. The NEC President is the Director of the Institute of Standards at the National Scientific-Research Institute for Standardization, Certification and Technical Regulation while the Secretary is the Chief Specialist of the International Cooperation Department at UZSTANDARD agency, the national body for standardization, metrology and certification.

[Mozambique](#) is another affiliate country to have selected three IEC technical committees and appointed experts: [IEC TC 14](#): Power transformers, [IEC TC 59](#): Performance of household and

similar electrical appliances, and [IEC TC 82](#): Solar photovoltaic energy systems. Following the changes made to its NEC in August 2018, Mozambique increased its participation in the programme by attending the 83rd General Meeting held in October 2019 in Shanghai, China, where both the NEC President and NEC Vice-President were present. The NEC President is the Senior Electrical Maintenance Technician of Cahora Bassa Hydroelectric, a hydropower generation company, while the NEC Secretary is the Standardization Officer at the National Institute of Standardization and Quality (INNOQ). The NEC is equally constituted of private sector companies, teaching institutions and representatives from governmental groups.

The IEC commenting process is a benefit granted to countries actively participating in the IEC Affiliate Country Programme. An active affiliate country is defined by its selection of up to 11 IEC technical committees (SyC LVDC is mandatory), expert nomination for each of the selected TC, as well as the establishment of a national electrotechnical committee (NEC). Since our last report, [Ecuador](#) submitted four comment forms to the IEC Affiliate secretariat, containing comments on committee draft (CD) stage documents pertaining to [IEC TC 8](#): System aspects of electrical energy supply. A first comment relating to a technical assessment report of standard voltages and power quality requirements for LVDC distribution and on a technical specification relating to distributed energy resources connected to the network. In April, Ecuador submitted two additional comments on [IEC SC 8B](#): Decentralized Electrical Energy Systems, technical requirements relating to energy management systems. All four comments were forwarded for consideration by ACP to the relevant technical committees' secretary before the end of the commenting stage, to be included in the compilation of comments.

The national adoption trend continues in IEC affiliate countries. In February 2020, [Cambodia](#) declared the national adoption of 24 additional IEC International Standards. During late April, [Ecuador](#) declared an additional national adoption relating to an IEC International Standard in the field of [IEC TC 70](#): Degrees of protection provided by enclosures.

- Out of the 85 IEC affiliate countries, 32 benefit from IEC Affiliate Plus status. This entitles them to access 400 free copies of IEC International Standards for adoption, instead of 200 publications, and provides priority for participating in the IEC Affiliate Mentoring Programme.

To date, 8 399 national adoptions of IEC International Standards have been declared, under the terms of the IEC Affiliate Country Programme, since its launch in 2001.

Mentoring programme

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The IEC is pleased to report the renewal of the partnership between the IEC NC of the [United Kingdom](#), BSI, and the NEC of [Namibia](#) within the IEC Affiliate Mentoring Programme. The renewal was signed on 24 October 2019, during the 83rd IEC General Meeting, and extends the previous partnership agreement for an additional two-year period. During the meeting, the representatives from Namibia and the United Kingdom established the objectives and plans for their partnership. Namibia has shown great interest in learning how to strengthen its existing NEC through various funding models and fully functional mirror committees. Further information is available on the [IEC Blog](#).

From 22-24 January 2020, under the framework of the IEC Mentoring Programme, the UK National Committee completed a 3-day NSB training and stakeholder workshop in Windhoek, Namibia. Focusing on how using international standards can support trade, BSI Senior International Policy Manager delivered the sessions alongside the WTO TBT Secretary, and experts from the Namibian Standards Institution (NSI). More than 70 representatives from NSI, the Namibian government and the private sector participated each day. The sessions also helped conclude phase one of an IEC Mentoring Agreement between BSI and NSI, the goal of which will be to help build NSI's capacity to make active contributions and bring technical participation and interaction within the IEC community. Further information is to be found on the [Commonwealth Standards Network website](#) and the [NSI Facebook page](#).

IEC conformity assessment (CA) activities

As an organization, IEC has two core pillars: international standard development and global conformity assessment services. Since its establishment in 1906, the IEC is well known for its standardization work in the electrotechnology sectors. However, in support of standardization, the IEC has also been operating conformity assessment activities for over 40 years by providing the framework and systems that support an internationally accepted standardized way of conducting testing, inspection and certification of equipment, components, processes and assessment of competent persons. This is facilitated by the operation of global conformity assessment schemes and programmes being run within the dedicated IEC CA Systems:

- [IECEE](#) covering equipment, components, EMC, via the certification bodies scheme,
- [IECEX](#) covering equipment, components, services and personnel certification in the explosive atmospheres' domain
- [IECQ](#) covering electronic components and processes associated with the supply chain,
- [IECRE](#) covering equipment, components and systems for the renewable energy sectors.

IEC CA Systems and the services they provide are gaining greater attention and use among developing and newly industrializing countries.

IEC Affiliate Conformity Assessment status

The Affiliate Conformity Assessment status ([ACAS](#)) offers affiliate participants benefits in all four IEC CA Systems, including any future CA Systems established by the IEC. The objective is to train affiliate countries to use IEC International Standards and benefit from its CA Systems through the recognition of IEC CA certificates at the national level.

As part of its commitment to involve developing countries in all aspects of IEC work, including conformity assessment, the IEC is pleased to report that [Burkina Faso](#) signed the ACAS Declaration, after having signed the ACAS Pledge in March 2018. In addition to access to capacity building resources in the field of conformity assessment, such as the ACAS e-learning course, Burkina Faso also declares the acceptance of certificates and reports issued within the IEC CA Systems.

84th IEC General Meeting in Geneva, Switzerland, 9-13 November 2020

A reduced version of the IEC General Meeting will be held in Geneva, Switzerland from 9-13 November 2020, due to the Covid-19 outbreak. It will include management meetings such as IEC Council Board, IEC SMB and IEC CAB meetings. A vast technical e-platform will be set up for IEC experts to discuss their ongoing projects. The list of technical meetings planned for this reduced GM is yet to be confirmed. Affiliate delegates participation to plenary technical meetings, as observers, will need to be confirmed by the technical committee's officers, and may be limited due to reduced audience and technical capabilities.

The IEC General Meeting provides IEC affiliate countries with the opportunity to become more familiar with the development of IEC International Standards, to meet IEC international experts and attend several meetings dedicated only to affiliate country participants, to be held during the reduced GM. We are pleased to communicate the dates of the yearly ACP events, as follows:

- Affiliate forum: Tuesday 10 November (afternoon)
- WIC: Wednesday 11 November (morning)
- Affiliate NEC workshop: Thursday 12 November (afternoon)

Affiliate forum

The topics to be discussed during this forthcoming Affiliate forum will be specifically focused on questions relating to the ways by which national electrotechnical committees (NECs) contribute to the development of their respective countries and how to identify and engage NEC stakeholders. The forum is also an occasion for the IEC Affiliate Leader, Rojas Manyame, to report on new developments in the programme and its main achievements over the past 12 months.

Affiliate countries are also invited to present case studies on topics relating to a common subject and discuss their respective know-how. Sharing knowledge and experience relating to the programme is the common ground and basis on which the forum stands.

Workshop for industrializing countries

The workshop for industrializing countries (WIC) brings together not only participants from affiliate countries but also delegates from IEC National Committees, regional and international organizations.

The WIC usually provides a high-level perspective on leading markets technology topics such as trade, or, for instance, the role standards play to support the UN Sustainable Development Goals (SDGs) and recommendations from the IEC. Speakers are usually representatives from renowned regional or international organizations wishing to share their expertise. More information on this forthcoming workshop will follow in the next report, prior to the GM.

Affiliate NEC Secretaries and Chairs workshop

This year, the NEC Secretaries and Chairs workshop will be dedicated to the Affiliate Conformity Assessment status (ACAS), its declaration form and the recognition of IEC CA certificates. Experience on this matter will be shared by some affiliate countries, followed by an open discussion on the use and recognition of the IEC CA certificates.

IEC Academy & Capacity Building activities

IEC Academy & Capacity Building (ACB) provides high quality training, e-learning and national workshops to the global IEC community, including affiliate countries. The ACB also provides webinar opportunities for example, to new technical committee secretaries, aimed at facilitating active participation in the IEC work, training to experts and ensures overall support for strengthening the national standardization infrastructure.

In February, within the context of its new membership to the IEC, representatives from [Ghana](#) were invited to attend a webinar on standardization processes and IEC procedures. In March, a similar training was given to the National Committee members from [Uganda](#).

The ACB provides training to National Committees and regional organizations as well as a platform for free public webinars, such as the recent webinar entitled *Circular Economy and Material Efficiency* held in February and available on the [IEC website](#). Public webinars are continuously updated, easily available and have shown remarkable success, with a 200% increase in registration compared to 2019. Building on its success, new webinars for regional organizations such as [COPANT](#) and [AFSEC](#) are currently planned.

Recordings of previous webinars and Q&As are available on the [IEC website](#), as well as registration to forthcoming webinars such as the one entitled *Peru: from Affiliate to IEC Full Member*.

Useful brochures/flyers

The IEC and the Sustainable Development Goals

Often behind-the-scenes but nevertheless crucial, the work of the IEC directly impacts all the 17 Sustainable Development Goals set by the UN. The brochure *Contributing to Sustainable Development Goals* provides a summary, goal-by-goal, of how IEC International Standards and Conformity Assessment Systems are making a difference.



Secrets of effective participation

The aim of this pocket guide is to give you general pointers that can accelerate your learning curve and hopefully increase the efficiency of your participation.



IEC Affiliate Mentoring: a gateway to new markets

The purpose of the IEC Affiliate Mentoring Programme is to enhance participation at all levels (standards development, management, conformity assessment) by encouraging national committees to share their expertise with developing countries who participate in the IEC Affiliate Country Programme.



Welcome to the IEC

A useful flyer to help communicate about IEC. It gives a basic overview of IEC structure, work and partnerships. Do not hesitate to download or ask for hard copies.



Annex A

88 IEC National Committees (as per 2020-04-30)

Albania	Associate member	Korea, Republic of	Full member
Algeria	Full member	Kuwait	Full member
Argentina	Full member	Latvia	Associate member
Australia	Full member	Lithuania	Associate member
Austria	Full member	Luxembourg	Full member
Bahrain	Associate member	Malaysia	Full member
Bangladesh	Associate member	Malta	Associate member
Belarus	Full member	Mexico	Full member
Belgium	Full member	Moldova	Associate member
Bosnia & Herzegovina	Associate member	Montenegro	Associate member
Brazil	Full member	Morocco	Associate member
Bulgaria	Full member	Netherlands	Full member
Canada	Full member	New Zealand	Full member
Chile	Full member	Nigeria	Full member
China	Full member	North Macedonia	Associate member
Colombia	Full member	Norway	Full member
Côte D'Ivoire	Associate member	Oman	Full member
Croatia	Full member	Pakistan	Full member
Cuba	Associate member	Peru	Full member
Cyprus	Associate member	Philippines, Rep. of the	Full member
Czech Republic	Full member	Poland	Full member
Denmark	Full member	Portugal	Full member
Egypt	Full member	Qatar	Full member
Estonia	Associate member	Romania	Full member
Finland	Full member	Russian Federation	Full member
France	Full member	Saudi Arabia	Full member
Georgia	Associate member	Serbia	Full member
Germany	Full member	Singapore	Full member
Ghana	Associate member	Slovakia	Full member
Greece	Full member	Slovenia	Full member
Hungary	Full member	South Africa	Full member
Iceland	Associate member	Spain	Full member
India	Full member	Sri Lanka	Associate member
Indonesia	Full member	Sweden	Full member
Iran	Full member	Switzerland	Full member
Iraq	Full member	Thailand	Full member
Ireland	Full member	Tunisia	Associate member
Israel	Full member	Turkey	Full member
Italy	Full member	Uganda	Associate member
Japan	Full member	Ukraine	Full member
Jordan	Associate member	United Arab Emirates	Full member
Kazakhstan	Associate member	United Kingdom	Full member
Kenya	Associate member	United States of America	Full member
Korea, DPR of	Associate member	Vietnam	Associate member

Annex B

85 IEC affiliates (as per 2020-04-30)

Afghanistan	2007	Kyrgyzstan	2003
Angola	2002	Lao PDR	2002
Antigua and Barbuda	2002	Lebanon	2001
Armenia	2001	Lesotho	2005
Azerbaijan	2011	Liberia	2016
Bahamas	2012	Madagascar	2005
Barbados	2001	Malawi	2001
Belize	2002	Mali	2001
Benin	2001	Mauritania	2002
Bhutan	2006	Mauritius	2001
Bolivia	2001	Mongolia	2002
Botswana	2001	Mozambique	2003
Brunei Darussalam	2001	Myanmar	2007
Burkina Faso	2001	Namibia	2001
Burundi	2002	Nepal	2001
Cabo Verde	2017	Nicaragua	2019 May
Cambodia	2001	Niger	2006
Cameroon	2005	Palestine	2009
Central African Republic	2008	Panama	2003
Chad	2008	Papua New Guinea	2004
Comoros	2001	Paraguay	2001
Congo	2008	Rwanda	2001
Congo (Dem. Rep. of)	2001	Saint Kitts and Nevis	2013
Costa Rica	2001	Saint Lucia	2002
Djibouti	2019 March	Saint Vincent and the Grenadines	2008
Dominica	2002	Sao Tome and Principe	2018
Dominican Republic	2005	Senegal	2002
Ecuador	2003	Seychelles	2001
El Salvador	2008	Sierra Leone	2003
Eritrea	2001	South Sudan	2013
Eswatini (Kingdom of)	2007	Sudan	2004
Ethiopia	2002	Suriname	2008
Fiji	2001	Syrian Arab Republic	2016
Gabon	2007	Tanzania	2001
Gambia	2008	Togo	2006
Grenada	2001	Trinidad and Tobago	2007
Guatemala	2001	Turkmenistan	2001
Guinea	2007	Uruguay	2001
Guinea Bissau	2006	Uzbekistan	2015
Guyana	2001	Yemen	2002
Haiti	2002	Zambia	2002
Honduras	2007	Zimbabwe	2001
Jamaica	2001		

About the IEC

The IEC, headquartered in Geneva, Switzerland, is the world's leading publisher of international standards for electrical and electronic technologies. It is a global, independent, not-for-profit, membership organization (funded by membership fees and sales). The IEC includes 173 countries that represent 99% of world population and energy generation.

The IEC provides a worldwide, neutral and independent platform where 20 000 experts from the private and public sectors cooperate to develop state-of-the-art, globally relevant IEC International Standards. These form the basis for testing and certification, and support economic development, protecting people and the environment.

IEC work impacts around 20% of global trade (in value) and looks at aspects such as safety, interoperability, performance and other essential requirements for a vast range of technology areas, including energy, manufacturing, transportation, healthcare, homes, buildings or cities.

The IEC administers four conformity assessment systems and provides a standardized approach to the testing and certification of components, products, systems, as well as the competence of persons.

IEC work is essential for safety, quality and risk management. It helps make cities smarter, supports universal energy access and improves energy efficiency of devices and systems. It allows industry to consistently build better products, helps governments ensure long-term viability of infrastructure investments and reassures investors and insurers.



A global network of 173 countries that covers 99% of world population and electricity generation



Offers an affiliate country programme to encourage developing countries to participate in IEC work free of charge



Develops international standards and runs four conformity assessment systems to verify that electronic and electrical products work safely and as they are intended to



IEC International Standards represent a global consensus of state-of-the-art know-how and expertise



A not-for-profit organization enabling global trade and universal electricity access



Key figures

88

national committees with full members (62) and associate members (26)

85

affiliates with adoption (52), with NEC (59)

207

technical committees (107) and subcommittees (100)

20 000

experts from industry, test and research labs, government, academia and consumer groups

10 771

international standards in catalogue (as per 2019-01-01)

4

global conformity assessment systems

>1 million

conformity assessment certificates issued



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Electrotechnical
Commission



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