



International Electrotechnical Commission

François Ahoti
IEC- AFRC Officer

IOREC 2016
30th September 2016
Nairobi

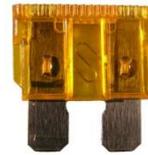


**INTERNATIONAL
ELECTROTECHNICAL
COMMISSION**

Scope of the IEC

Millions of devices and systems that use or produce electricity and contain electronics.

Interoperability, safety, performance, EMC, waste management and environment



Standards
development

Conformity
Assessment
activities

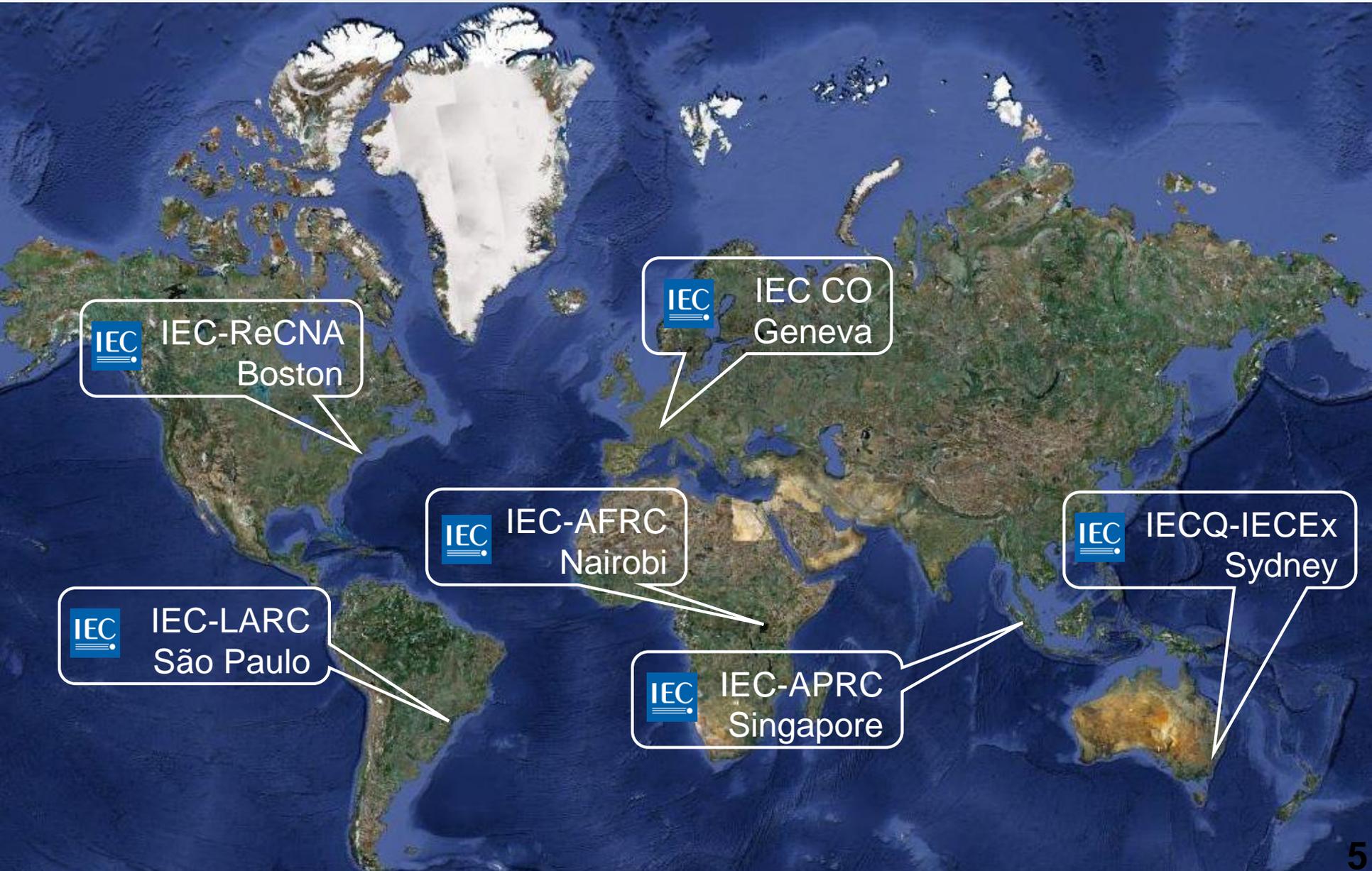
Over 1 000 000 certificates





global reach:
169 countries
98% of world population
96% of energy generation

IEC offices



IEC-ReCNA
Boston



IEC CO
Geneva



IEC-AFRC
Nairobi



IECQ-IECEX
Sydney



IEC-LARC
São Paulo



IEC-APRC
Singapore

IEC-AFRC Inauguration 2nd Nov 2015



7th Floor, Block One, Eden
Square, Chiromo Road,
Westlands

P.O. Box 856
00606 Nairobi, Kenya

Tel : + 254 20 367 3000
+ 254 20 375 2244

Mobile: +254 733 897 000
+254 704 937 806

Fax: +254 20 374 0913

Email: eod@iec.ch
fya@iec.ch

Mission



IEC Rural Electrification



How IEC IS and CA benefit the Rural Electrification sector

- Facilitate interoperability (products and systems)
- Achieve safety
- Improve efficiency
- Improve investors' confidence (facilitate investments and obtaining insurance)
- IEC IS (written by international experts) are used as basis for technical regulations

Benefits for policymakers

- Provide detailed technical basis for laws and regulations
- Already exists and avoids “reinventing the wheel” – cost savings
- Standards are updated as technologies evolve
- Reflects state of the art, international consensus
- Facilitate trade (WTO TBT)
- Offer the complete range of tools for all forms of conformity assessment

IEC IS to support Rural Electrification

- **Solar power**
 - IEC TS 62257 series Recommendations for renewable energy and hybrid systems for rural electrification
 - IEC 61215 series Terrestrial photovoltaic (PV) modules
- **Micro and pico hydropower**
 - IEC 60545 Guide for commissioning, operation and maintenance of hydraulic turbines
 - IEC 61366 Hydraulic turbines, storage pumps and pump-turbines
- **Wind power**
 - IEC 61400 series Wind turbines
- **Energy Storage**
 - IEC 62933 Electrical Energy Storage (EES) systems
- **LVDC**
- **Microgrids**

IEC TS 62257 Series

The IEC 62257 series contains technical specifications which address three main topics:

- 1) introduction to rural electrification;
- 2) project management and implementation guidelines; and
- 3) technical specifications for components and systems.

The IEC TS 62257 series also provides project implementers with information on how to select the best product from a variety available in their local markets, the best suited quality tests for specific market conditions, and technical and economic aspects of energy products and systems.

The details of the available discounts for qualifying stakeholders are:

- 75 % discount on IEC TS 62257-9-5 (with or without all normative references)
- 58% discount on entire IEC TS 62257 series + all normative references
- 50% discount on any other individual documents in the IEC/TS 62257 series (with or without normative references)
- More information is available on the IEC Webstore

IEC involvement in the field of renewable energies (1/2)

- Renewable energies, covered by:
 - TC 4, Hydraulic turbines
 - TC 82, Solar photovoltaic energy systems (IEC 61215, IEC 62257 - SE4ALL)
 - TC 88, Wind turbines (IEC 61400)
 - TC 105, Fuel cell technologies (IEC 62282)
 - TC 114, Marine energy - Wave, tidal and other water current converters (IEC 62600)
 - TC 117, Solar thermal electric plants
- Integration of renewable energies into the grid, involves:
 - TC 8, Systems aspects for electrical energy supply
 - TC 57, Power systems management and associated information exchange
 - TC 120, Electrical Energy Storage (EES) Systems



IEC involvement in the field of renewable energies (2/2)

- Integration of renewable energies into the grid (cont.):
 - White paper developed by IEC Market Strategy Board:
[“Grid integration of large-capacity renewable energy sources and use of large-capacity electrical energy storage”](#)
 - IEC SC 8A, Grid Integration of large-capacity renewable energy (RE) generation
- Smart grid covered by:
 - TC 57, Power systems management and associated information exchange
 - PC 118, Smart grid user interface
 - TC 8, Systems aspects for electrical energy supply
 - TC 13, Electrical energy measurement and control
 - SEG 1 Systems Evaluation Group - Smart Cities
 - SYC Systems Committee - Smart Energy

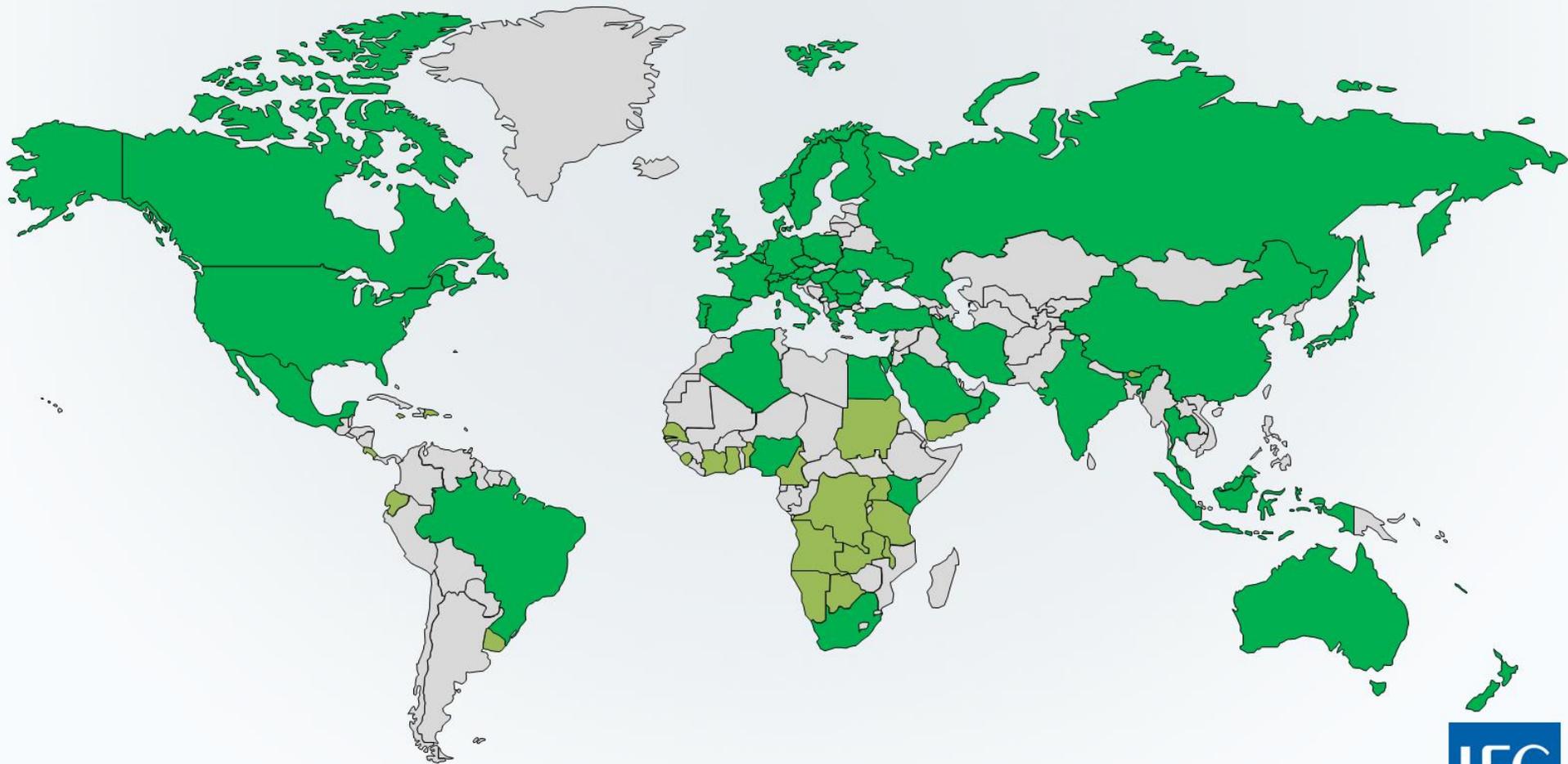
Renewable energies zone on the IEC website:
www.iec.ch/renewables



IECRE



Participation in IEC Technical Committees on Renewable Energy





Thank you for your attention!

François Ahoti
IEC- AFRC Officer

IOREC 2016
30th September 2016
Nairobi



**INTERNATIONAL
ELECTROTECHNICAL
COMMISSION**