



collaborating widely



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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION



The world of standards



Scope of the IEC

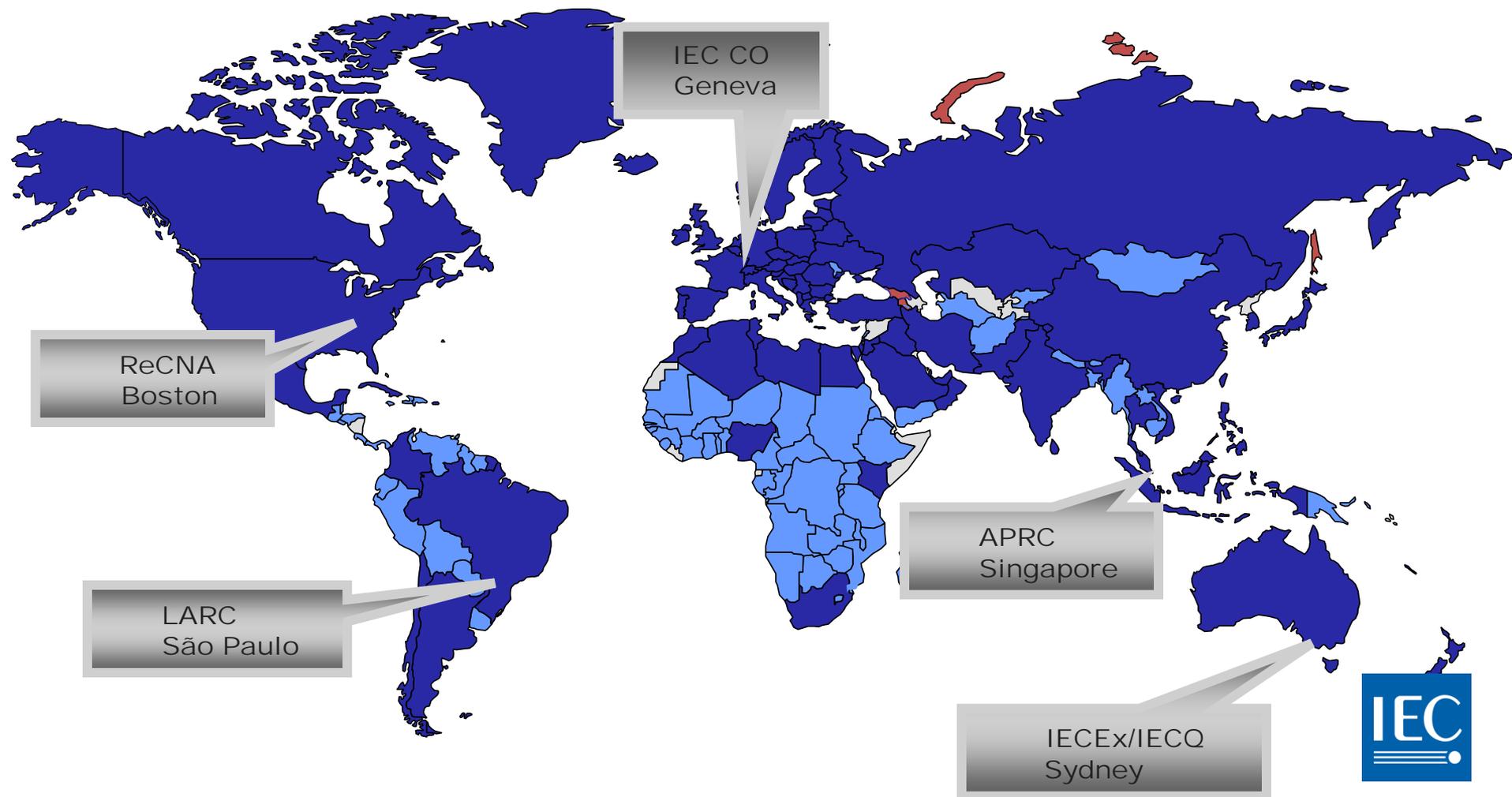
- Founded in 1906
- Promote international co-operation on all questions of standardization and conformity assessment
- International Standards and Conformity Assessment Systems for all electrical and electronic components, devices and systems



IEC - global reach

82 Members

83 Affiliates



Regional Centres

- **IEC-ReCNA – Boston**
Staff: 5 **TC/SCs: 40**
- **IEC-APRC – Singapore**
Staff: 7 **TC/SCs: 52**
- **IECEX/IECQ – Sydney**
Staff: 6 **CA Systems: 2**
- **IEC-LARC – São Paulo**
Staff: 2



Types of participation

- **IEC is a voluntary association of National Committees that fully represent electrotechnical interests in their countries**
 - **Government, industry, testing laboratories, academia, consumer groups...**
- **Membership – one member per country**
 - **Full Members (60)**
 - **Associate Members (22)**
- **Affiliate Country programme**
 - **83 participants ex: Armenia, Azerbaijan, Kyrgyzstan, Turkmenistan**



A close-up photograph of several interlocking metal gears of various sizes. The gears are made of a dark, possibly steel, material and are arranged in a complex, overlapping pattern. The lighting is dramatic, with strong highlights on the teeth of the gears and deep shadows in the recesses, creating a sense of depth and mechanical complexity. The background is slightly blurred, focusing attention on the foreground gears.

systems approach

Systems Evaluation Groups

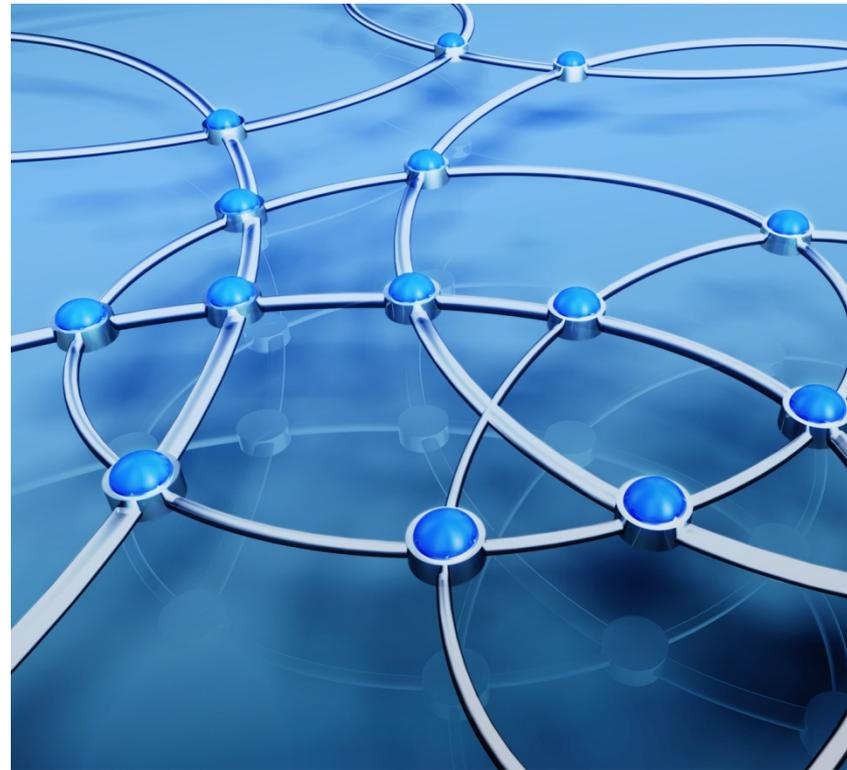
- Who is impacted?
- Who needs to cooperate – participation of all interested parties!
- Systems architecture
- Road-maps
- Systems boundaries
- Gaps/missing processes





Specialized Systems Committees

- Reference architectures
- Use cases
- Functionality
- Interfaces
- Systems interactions
- Coordinate work across Technical Committees

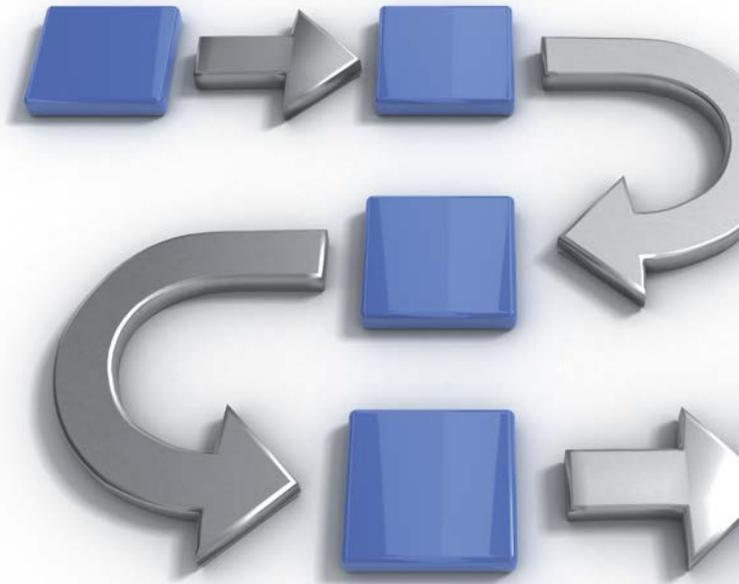


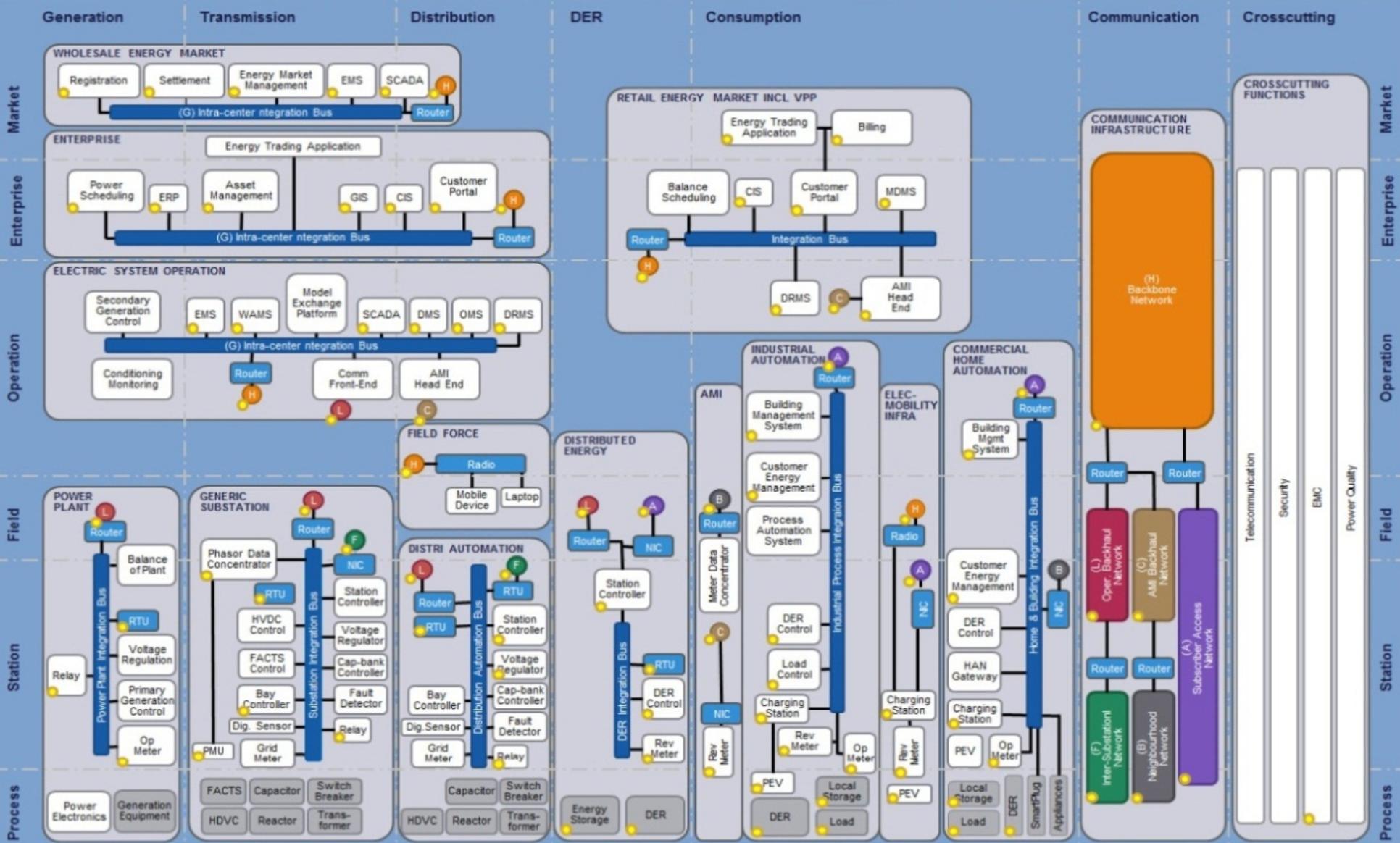


Systems Resource Group

System experts:

- **Development of special tools**
- **Software applications**





Smart Grids, Smart Cities

- Participation in all major projects globally
- World Smart Grid Forum: Berlin 24-25 September 2013
 - Stimulate decisions: move projects to large scale implementation
- First African Smart Grid Forum: 19 – 21 May, 2014, with AFSEC, Abidjan, Côte d'Ivoire

WORLD SMART GRID
FORUM 2013

A business, regulatory and technical executive perspective



Berlin, 24 – 25 September 2013
www.worldsmartgridforum2013.org

Smart Cities

- High dependency on electricity and electronics
- IEC impacts most systems and devices in cities
- IEC Systems Evaluation Group on Smart Cities develops architecture and roadmap in cooperation with many organizations
- MSB prepares White Paper to move cities to “smartness”



Beyond devices

Looking at systems, including risk management – example IECEx

- Design of devices/systems
- Installation
- Inspection
- Maintenance/repair
- Competence of personnel
- End of life management





IECRE





sharing expertise



Mentoring Programme in a nutshell

- **Partnerships between**
 - IEC NCs and IEC NCs
 - IEC NCs and Affiliate NECs
- **Voluntary programme lasting up to two years**
- **Progress report after one year and another at the end of the period**
- **Two levels of mentoring: management and technical**



Affiliate Programme in a nutshell

- **Free Programme to help developing countries comply with WTO TBT Agreement**
 - Active participation, but not a kind of membership
- **Affiliates use IEC International Standards on national level**
 - Access to 200 IEC IS for national adoption
 - 400 IEC IS for Affiliates Plus
- **Assistance to establish National Electrotechnical Committees**
- **Selection of 10 technical fields to access and comment on working documents (up to and including CDV)**
 - Experts with login

Recent developments for Affiliates

- **Affiliate Conformity Assessment Status in 2013**
- **Mentoring Programme in 2013: partnership**
 - IEC NC / Austria and Affiliate NEC/Rwanda
 - Applications from: Afghanistan/ Côte d'Ivoire/ DRC/ Ethiopia
- **Affiliate Forum in GM New Delhi**
 - 26 delegates from 13 developing countries
 - On mentoring
 - Case study from Ethiopian NEC
- **Industrializing country workshop in GM New Delhi**
 - 50 participants from 25 countries
 - Solar photovoltaic energy standards for developing countries



SUSTAINABLE ENERGY FOR ALL



- **UN-Foundation Practitioner network regular participation**
- **Participation in workshops (Cambodia, India)**
- **IEC General Secretary participation at Clean Energy Ministerial – New Delhi**
- **Official commitment: facilitated access to PV standards for DCs**



Work groups

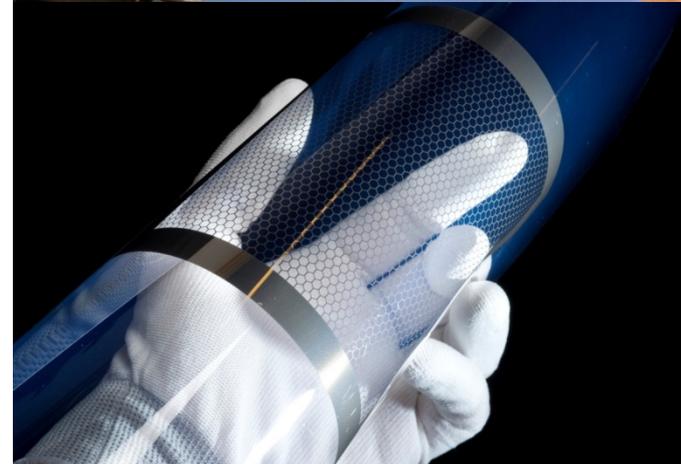
**TC 117:
Solar thermal electric plants**

**PC 118: Smart Grid user
interface**

TC 119: Printed electronics

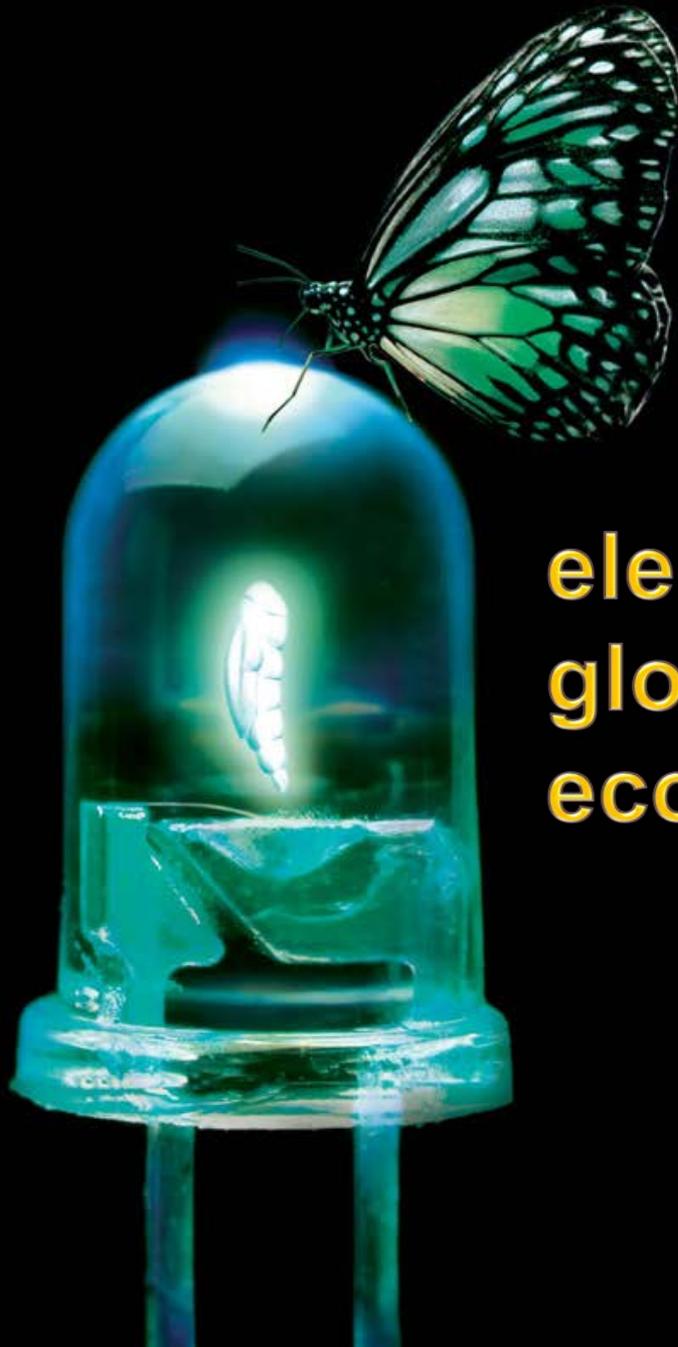
**TC 120: Electrical energy
storage**

TC 122: UHV AC transmission



providing guidance





**electricity + IEC =
global trade and
economic development**