The Global Goals for Sustainable Development
energy demand by developing nations will double

Figure 81. OECD and non-OECD net electricity generation, 1990-2040
trillion kilowatthours

OECD

Non-OECD
IEC global reach: 170 countries

83 Members

87 Affiliates

IEC CO Geneva

ReCNA Boston

LARC São Paulo

AFRC Nairobi

APRC Singapore

IECEx/IECQ Sydney
Global standardized approach to testing and verification

Four independent Conformity Assessment Systems:
  Test and certify performance and safety of products for home, office, medical, manufacturing, energy generation, etc.

Most countries accept products built to IEC International Standards
What are IEC International Standards?

- Contain global consensus on a solution to a particular issue
- Embody universal know-how of all relevant stakeholders – more than 20,000 experts globally
- Provide technical basis for safety, efficiency and reliability
- Help reduce cost, increase productivity, broader market access, facilitate global trade
Why are International Standards useful to policy makers?

• Increase safety, efficiency, competitiveness and facilitate global trade

• Help specify technical details + how to meet requirements, verify compliance, keep regulations up-to-date

• Help avoid technical barriers to trade and fulfil WTO requirements

• Easier to achieve sustainability, efficiency, resilience
Why is verification important?

- Conformity assessment verifies and confirms that product promises are real = quality and risk management
- Credible standards + testing and verification make it easier to progress to sustainable development goals
SDG 7 Energy = core to IEC

Access to affordable, reliable, efficient energy services:

IEC provides technical foundation for all forms of power generation, off-grid and on-grid.

Ensures safety, enables interoperability

Secures long-term infrastructure investments and maintenance
quality lighting
enabling energy efficiency
SDG 1 + 2 Ending poverty and hunger

1/3 of food is wasted - much because it is not cooled

IEC provides technical foundation for all domestic and industrial cooling systems
SDG 3 Better health

Essential quality health-care, vaccines and medicines:

IEC underpins safety and reliability of the large majority of all medical devices used in diagnostics and treatment.

Solar powered camel clinic: cooled medicine – Kenya/Ethiopia – inhabitat.com
SDG 4 Education and learning

Access to information and communication technology:
IEC work covers hardware such as computers, mobile phones, displays, printers, etc. and ICT such as MPEG or JPEG
SDG 6 Water and sanitation

Safe and affordable drinking water:
IEC work covers water extraction, desalination, purification, distribution, use and waste water management

Solar electric pump – delmonsolar.com
SDG 8 Decent work & economic growth

Safety at work and increased economic productivity through technical upgrading:

IEC: machine safety, built-in interoperability, easier technology adoption, much greater choice at better prices
Quality infrastructure in support of economic development:

IEC International Standards facilitate innovation and technology transfer and support the development of quality infrastructure that can be updated and repaired.

Car manufacturing Mobius motors - Kenya
SDG 11  sustainable cities & communities

Safe, affordable, sustainable transport systems, urbanization, disaster resilience:

IEC Standards for trains, buses, electric vehicles and all related infrastructure.

Include safety considerations that increase disaster resilience

Metro Addis Ababa – cnn.com
Strengthen technological capacity, management of chemicals:

IEC work facilitates technology transfer and underpins harvesting, storage, production and cooling technologies.

Control of hazardous substances in manufacturing of electrical and electronic devices

Lead-free soldering
SDG 13  Climate change action

Strengthen resilience and adaptive capacity to hazards and natural disasters, reduce impact

60 risk management Standards help reduce disaster impact and increase resilience of electrical and electronic systems
SDG 17 Strengthen global partnership for sustainable development

Enhance access to technology and innovation, facilitate global trade

IEC International Standards: vast amount of technical know-how and expertise for better products and participation in global trade

Installation of inverter for solar system, school, Tanzania
www.globalgiving.org
AHEEERR – ASEAN Harmonized Electrical and Electronic Equipment (EEE) Regulatory Regime

Policy: use International Standards whenever available, directly without need for national adoption

Minimal national modifications allowed to adapt to local conditions – deviations collected/approved by EEE Joint Sector Committee
The Global Goals for Sustainable Development

1. No Poverty
2. Zero Hunger
3. Good Health and Well-Being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace and Justice Strong Institutions
17. Partnerships for the Goals