



# Standards and conformity assessment for *green*

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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

# The energy / electricity problem

- Growing population
- Growing energy use
- 1.6B people have no electricity
  - So use will *increase* in many places
- Greenhouse gases: deteriorating climate
  - Coastal cities may disappear
- Factor of four improvement needed
  - Half as much, twice as efficiently

## The logic of how standards and conformity assessment can help

- Worldwide energy challenge can only be met by international agreement
- Energy efficiency, electrification, use reduction, etc. need clear specifications
- IEC standards are the ***best worldwide technical consensus*** achievable
- Therefore regulations & policy are best if based on standards & conformity to them



## White Paper: Electrical Energy Efficiency

- Long-term strategic view – 20 years, up to 2030
- Document approved by IEC Council Board, highest IEC authority
- Gives recommendations to reduce CO<sub>2</sub> emissions & energy consumption
  - for standards & conformity assessment  
but also for others:
    - regulators
    - companies



# Framework for solutions

- It will cost more to do nothing!
- Electricity is a key element
  - Controllable
  - No waste or emissions at end use
  - Transportable
- *Triad: save, electrify, decarbonize*
  - Products can be 30 % more efficient
  - Electrify transport, heating (for control/CHP)
  - Renewables, re"old"ables (CCS)

# How?

- Agree on the “what”: precise technical spec.
  - Absolute need for all countries’ **consensus**
  - This means a **standard** (must be international)
  - Many already exist, others under development
- Agree policy & investment to implement
- Check that it has been done correctly
  - This means conformity assessment
- Demonstrate & compare efficiency
  - Coherent regulations & labelling



# Why IEC Conformity Assessment?

- They are the only truly global CA Systems
- Offer totally reliable & predictable results
- - to IEC International Standards
- Obligatory mutual acceptance of test results
  - All the advantages of Mutual Recognition Agreements without the overhead, difficulties
- Easy path to good regulations
  - Regs. may refer to, or be based on, Certificates
- Ideal for comparability, i.e. fairness





PZN-1234562

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kWh

2.0-200A 240V 50Hz 1Ph 2W

[www.iec.ch/smartenergy](http://www.iec.ch/smartenergy)

**Thank you for  
your attention**

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