

Opportunities for Asian Countries in Leapfrogging to Efficient Lighting, Appliances & Equipment

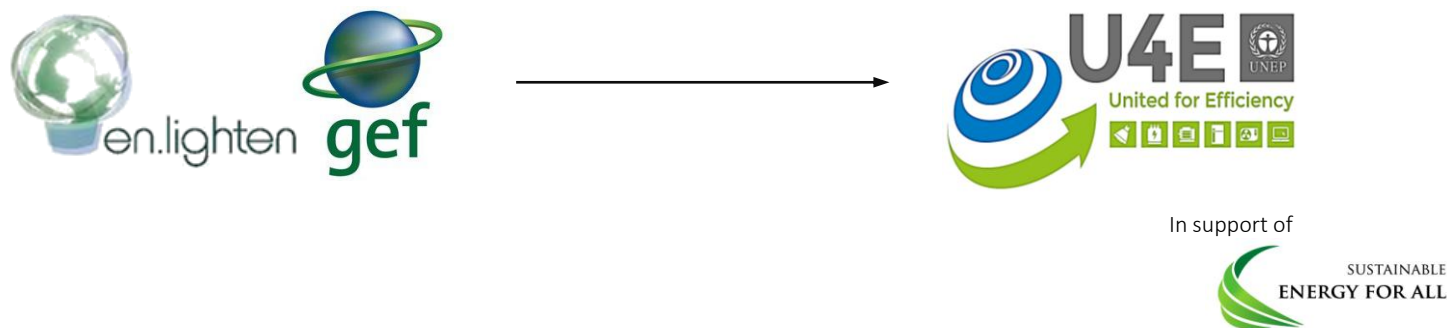
Pierre Cazelles, International Copper Alliance

In partnership with:

United Nations Environment Programme, United Nations Development Programme,
CLASP & the Natural Resources Defense Council,
with the financial support of the Global Environment Facility



United for Efficiency – taking the en.lighten approach to the next *low hanging fruits*



- UNEP, UNDP, ICA, CLASP and NRDC launched **United for Efficiency** (U4E) in 2014
- A public-private partnership expanding the **en.lighten** approach to the next *high impact opportunities*
- Supporting to the Secretary General's Sustainable Energy for All (SE4ALL) initiative:
 - doubling the global rate of improvement in energy efficiency
 - implementation of the SE4ALL Energy Efficiency Accelerators on Lighting, Appliances & Equipment

Project Partners on Lighting, Appliances & Equipment

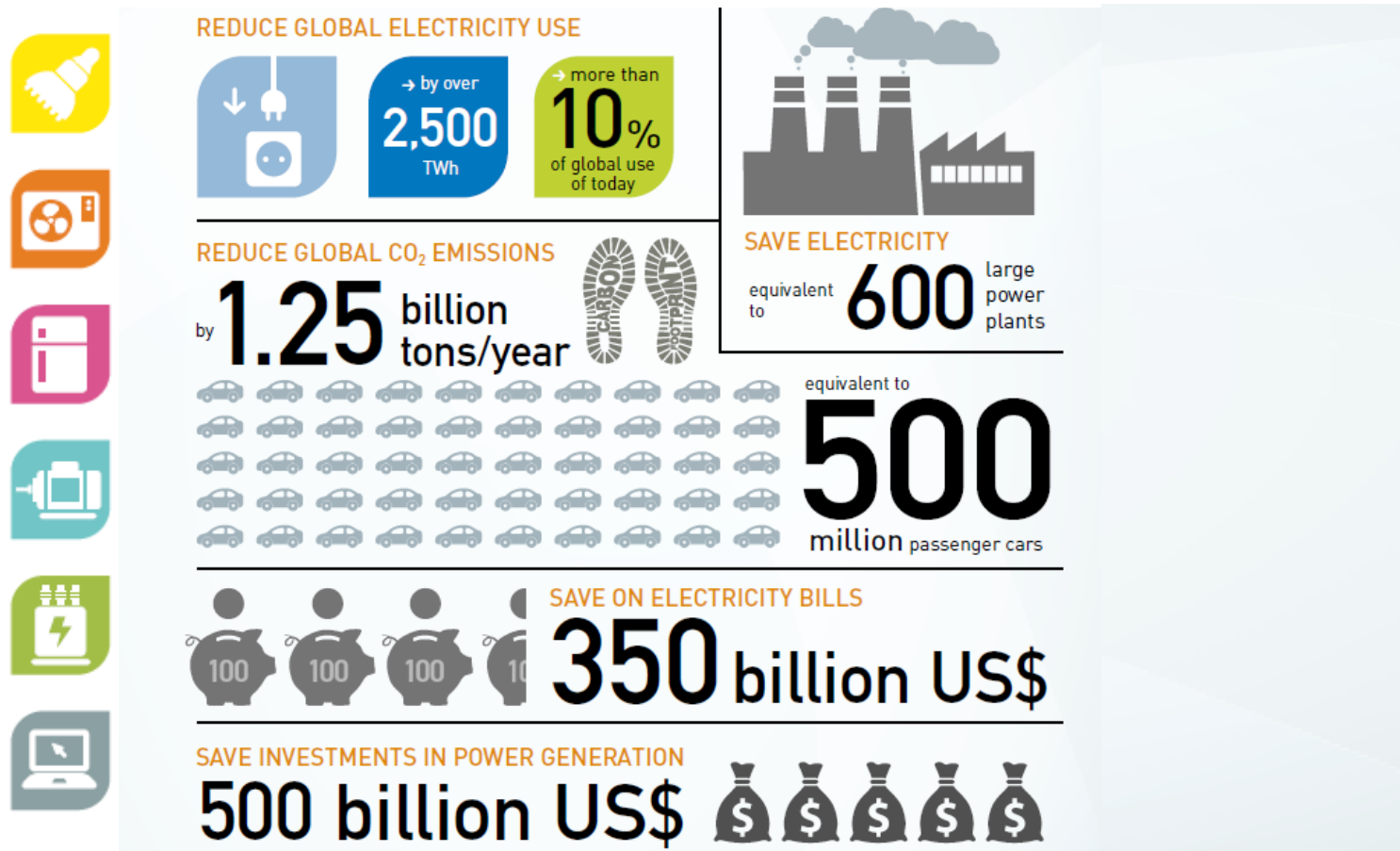


Donors and international organizations	   
Partner organizations	            
Private sector partners	         



...the network it's growing fast.

The Global Potential of Efficient Lighting, Appliances & Equipment



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The Multiple Benefits of Leapfrogging to Efficient Lighting, Appliances & Equipment



Savings on electricity bills increase purchasing power

Free power generation capacity for development



Meet Tomorrow's Energy Needs by Leapfrogging to Efficient Appliances & Equipment Today!



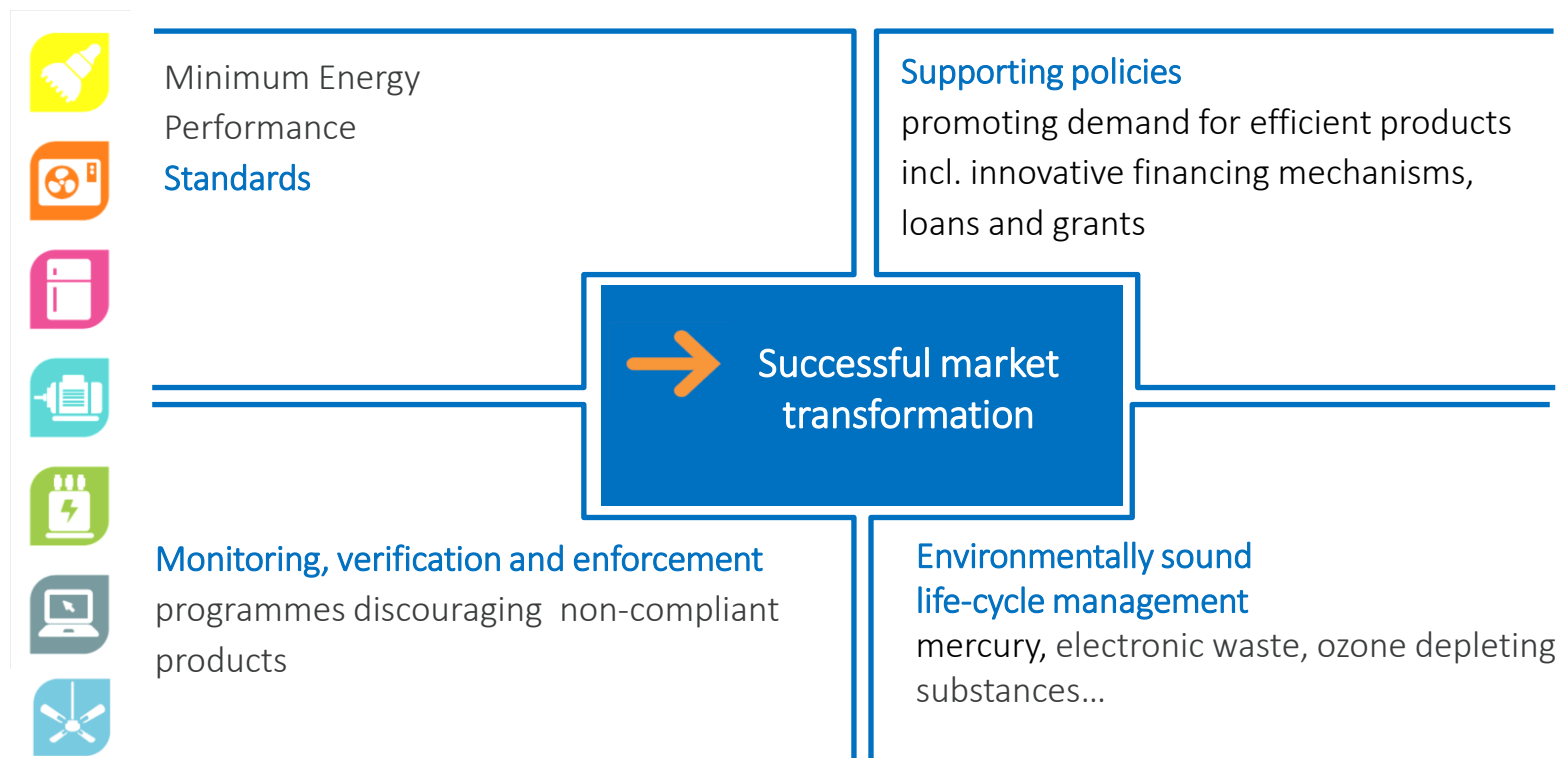
Reduce CO₂ emissions & mitigate climate change

Promote competitiveness & economic development



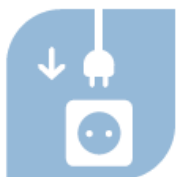
Modus Operandi to Transform Markets

The integrated policy approach



Savings Potential in Asia

Potential annual savings in Asia from refrigerators and air conditioners



Save electricity

→ by over **470 TWh**

→ more than **8%** of current electricity use (all sectors)

...equivalent to saving
160 GW in electricity
generation capacity



Save **50 billion US\$** on electricity bills

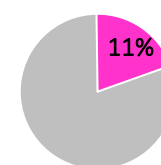
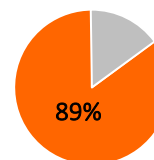


Reduce CO₂ emissions by
460 million tonnes per year

...equivalent to
250 million
passenger cars



Share of savings from:



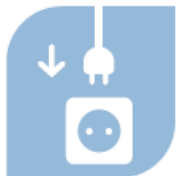
Savings potential were calculated by GIZ's Green Cooling Initiative: <http://www.green-cooling-initiative.org/>

Further Data Sources: IEA Key World Energy Statistics 2013, IEA World Energy Outlook 2013, The Green Cooling Initiative, UNEP

Countries included in the analysis: Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Singapore, Thailand, and Viet Nam

Savings Potential in China

The potential annual savings in **China** from refrigerators and air conditioners



Save electricity

→ by over **350 TWh**

→ more than **8%** of current electricity use (all sectors)

...equivalent to saving
120 GW in electricity
generation capacity



Save **43 billion US\$** on electricity bills

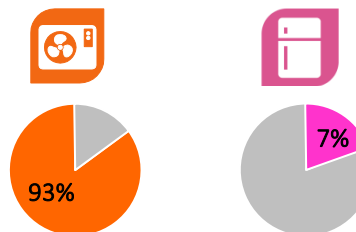


Reduce CO₂ emissions by
355 million tonnes per year

...equivalent to
200 million
passenger cars



Share of savings from:



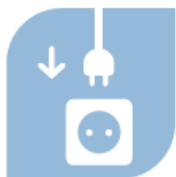
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Savings potential were calculated by GIZ's Green Cooling Initiative: <http://www.green-cooling-initiative.org/>

Further Data Sources: IEA Key World Energy Statistics 2013, IEA World Energy Outlook 2013, The Green Cooling Initiative, UNEP

Savings Potential in India

The potential annual savings in **India** from refrigerators and air conditioners



Save electricity

→ by over **60 TWh**

→ more than **7%** of current electricity use (all sectors)

...equivalent to saving
20 GW in electricity
generation capacity



Save **4 billion US\$** on electricity bills

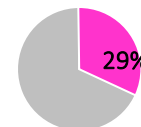
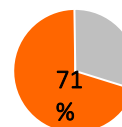


Reduce CO₂ emissions by
70 million tonnes per year

...equivalent to
40 million
passenger cars



Share of savings from:



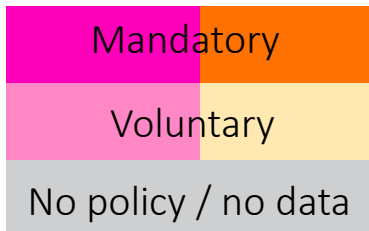
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Status of Minimum Energy Performance in Asia

Room air conditioners



Residential refrigerators



Sources: CLASP Standards and Labels Database and Harrington, L. and Brown, J. "Energy Standards and Labelling Programs throughout the World in 2013". Australia Department of Energy. 2014.

Examples of Projects in Asia



Asia Pacific – Capacity building for efficient lighting MVE

- Project implemented by UNEP and funded by Australian Government since 2013
- 1 Pacific Efficient Lighting Strategy bringing together 10 Pacific Island Countries
- 3 regional lighting workshops held in Asia region (*lites.asia*)
- 6 technical guidance notes on efficient lighting MVE
- 14 training sessions on efficient lighting MVE policy and implementation

ASEAN – Regional harmonization of lighting policies and standards



- Decision by ASEAN countries in April 2015 – project launch September 2015
- Project will be coordinated by UNEP and ASEAN Center for Energy
- Will include:
 - (1) regional market assessment,
 - (2) regional efficient lighting strategy,
 - (3) national implementation plans,
 - (4) capacity building

Opportunities for Asian Countries

- ➔ Join the partnership!
- ➔ Develop national/regional strategies for high-efficiency products
- ➔ Develop and implement national (regionally harmonised) projects

Benefit from a tailored support package !



Development of project proposals to international donor organisations (e.g. the Global Environment Facility, GEF) and bilateral donors



Tailored training and capacity building to implement the integrated policy approach



Access to resources and support materials (e.g. best practice guides)



Regional workshops to share best practices and increase coordination among countries



Tailored support from the Global Centre of Excellence (international experts)



Development of country lighting, appliances and equipment assessments