United For Efficiency: Regionally Harmonized Standards in Appliances and Industrial Equipment

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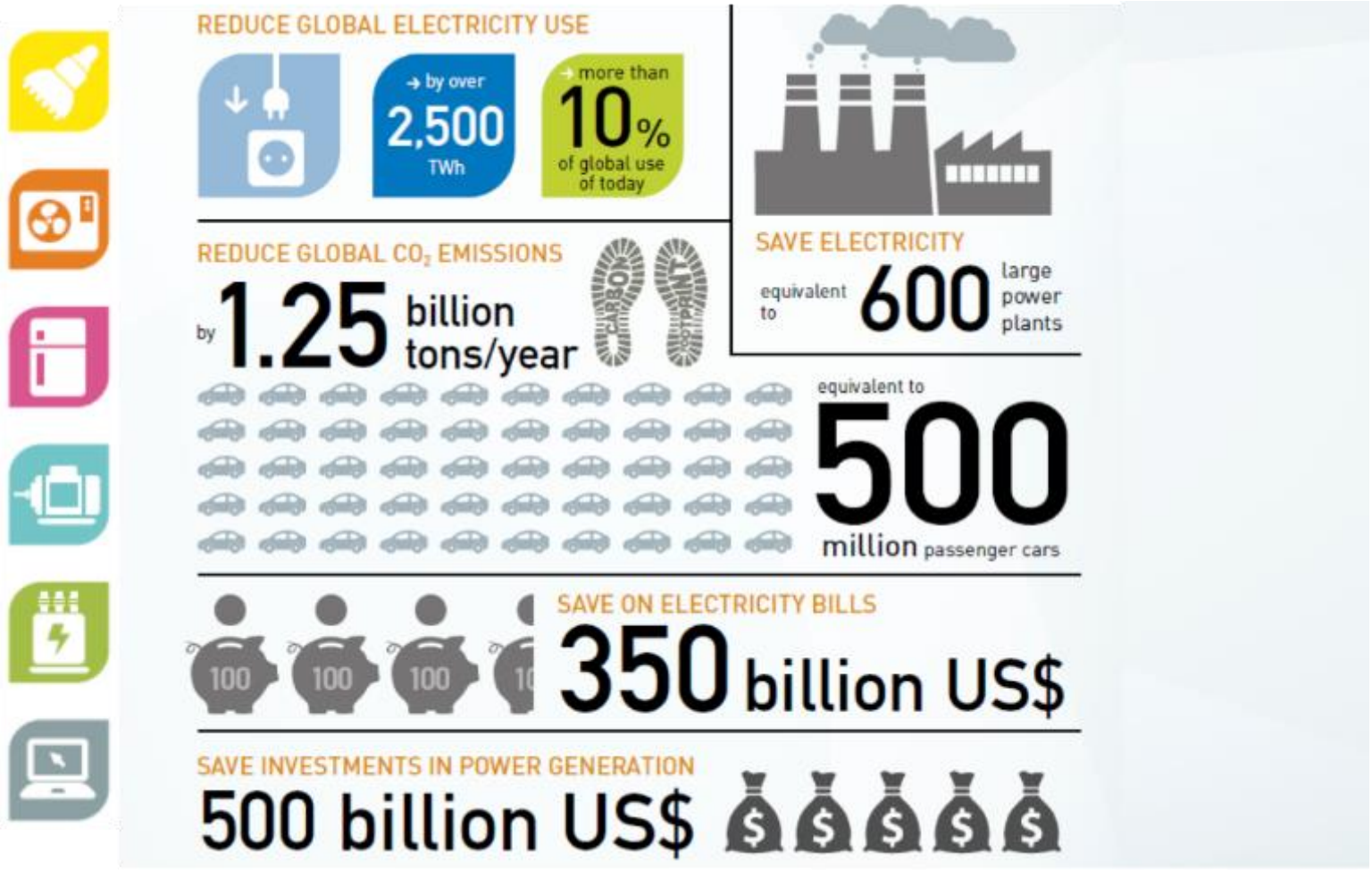
Efficient Appliances & Equipment – taking the en.lighten approach to the next *low hanging fruits*

- **UNDP, ICA, CLASP, NRDC and UNEP** launched the United for Efficiency (U4E) in 2014
- The Programme aims to **join forces with private and public sector** to **expand the en.lighten approach to the next *high impact opportunities*,**
- Supporting the second goal of the Secretary General's SE4ALL initiative: double the global rate of improvement in energy efficiency
- The en.lighten and U4E initiatives form part of the **SE4ALL Energy Efficiency Accelerators on Lighting and Appliances & Equipment**

Project Partners on Lighting, Appliances & Equipment

Donors and International organizations	UNEP, UNDP, gef, Australian AID, BMZ Federal Ministry for Economic Cooperation and Development
Partner Organizations	International Copper Association Copper Alliance, clasp, NRDC The Earth's Best Defense, SAPP, Copenhagen Centre on Energy Efficiency SE4ALL EE HUB, giz, olade Organización Latinoamericana de Energía, GELC, CNIS 中国标准化研究院 China National Institute of Standardization, nltc National Lighting Test Centre China, bigEE, tis topten international services
Supportive Private Sector	OSRAM, ABB, B/S/H/, Global Lighting Association, PHILIPS, Electrolux, GGLA, Eskom, mabe, arçelik, DEFY, Whirlpool Corporation
Countries	En.lighten: 66 partner countries U4E: 19 partner countries

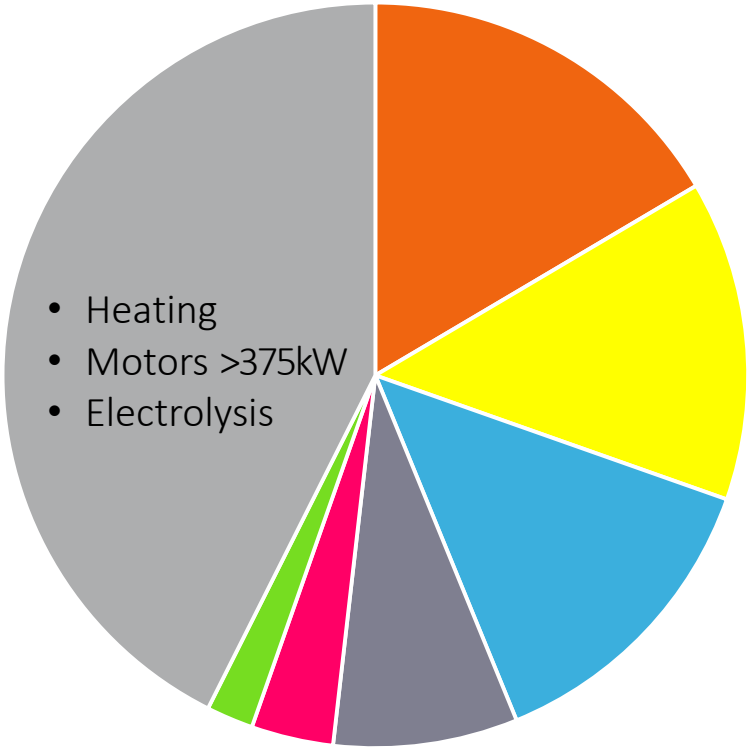
The Potential of Improving Energy Efficiency in the Top 6 High-consuming Products



Source: UNEP, 2014 (estimated annual figures for 2030)

Global Consumption of Electrical Products in 2030

Global Electricity Consumption in 2030 – Business as Usual



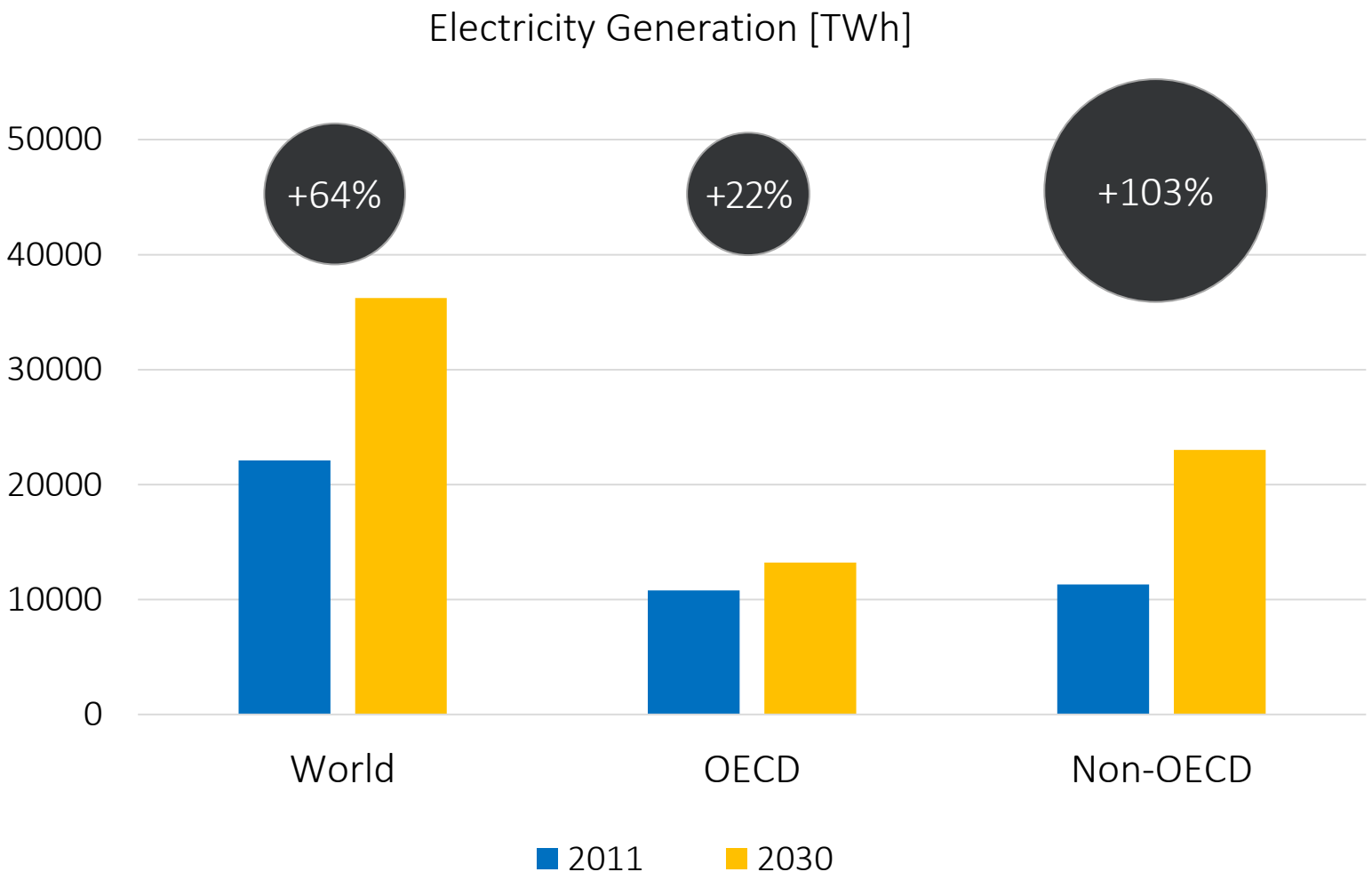
Total: 31,000 TWh

- Air-conditioners
- Lighting
- Electric motors (0.75-375kW; excluding AC & refrigerators)
- Information technology
- Refrigerators
- Transformers

Σ 56% of global electricity use

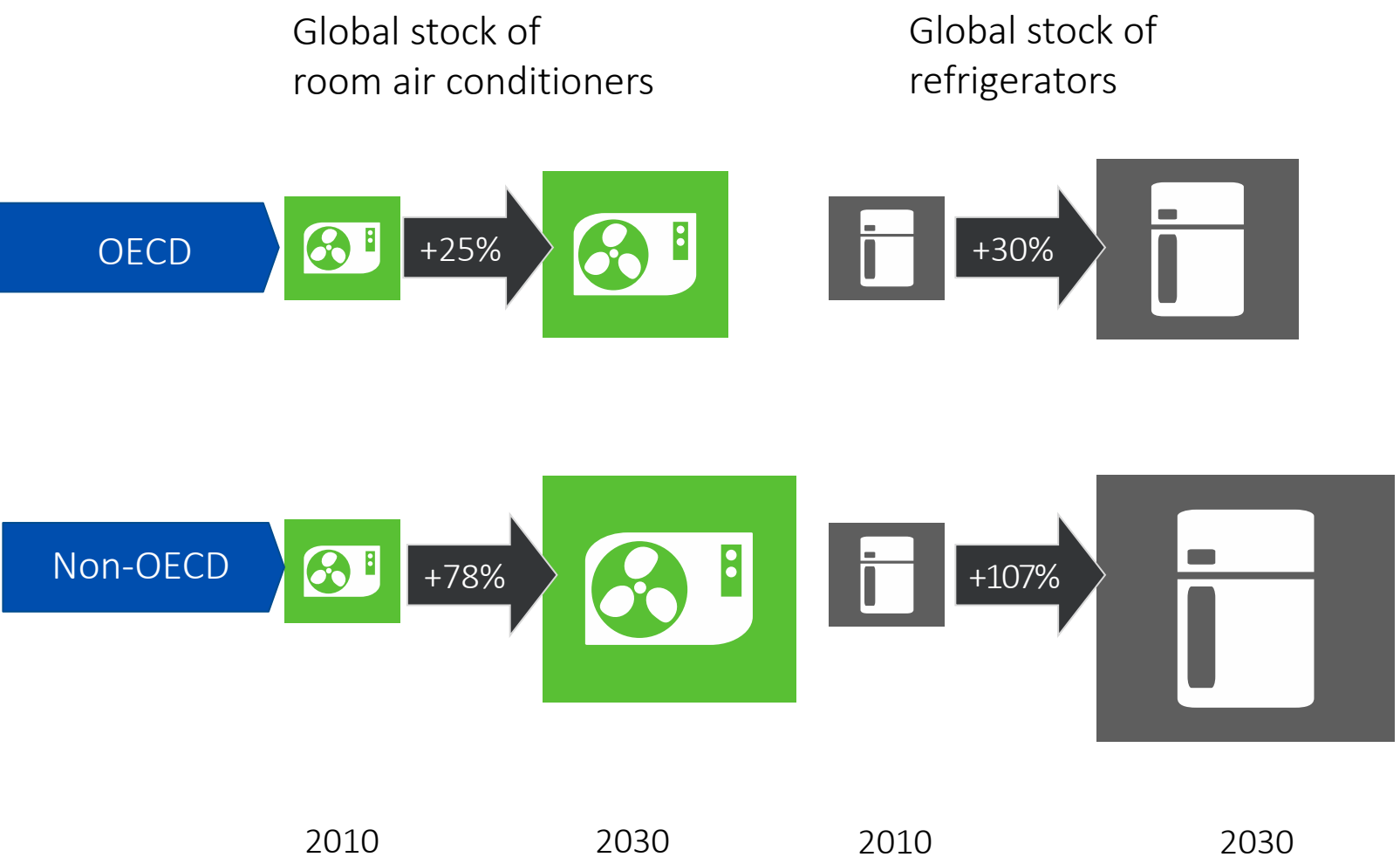
Data Sources: IEA Key World Energy Statistics 2013, IEA World Energy Outlook 2013, Lawrence Berkeley National Laboratory BUENAS Model; USEIA , UNEP

With No Action, Electricity Demand in non-OECD Countries Will Double by 2030



Source: IEA World Energy Outlook 2013, current policies scenario

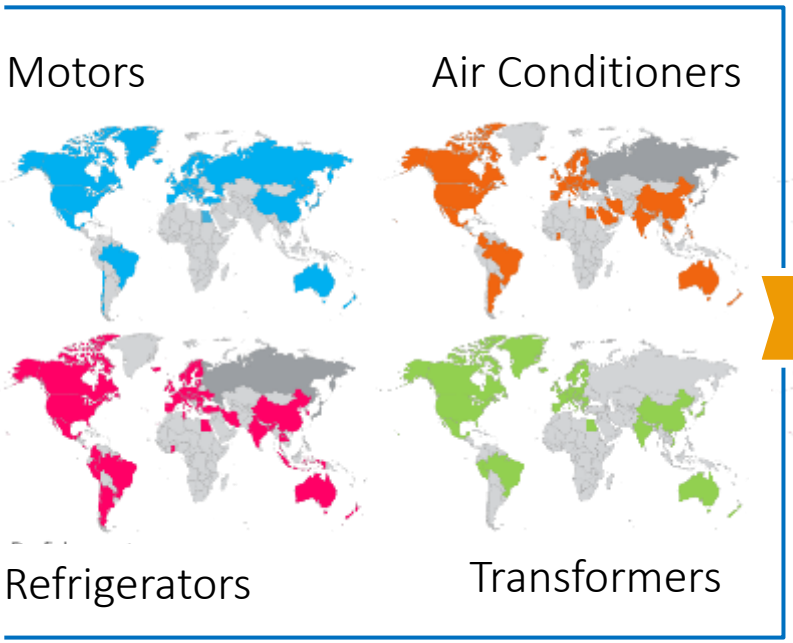
Countries Risk Locking-in Inefficient Products



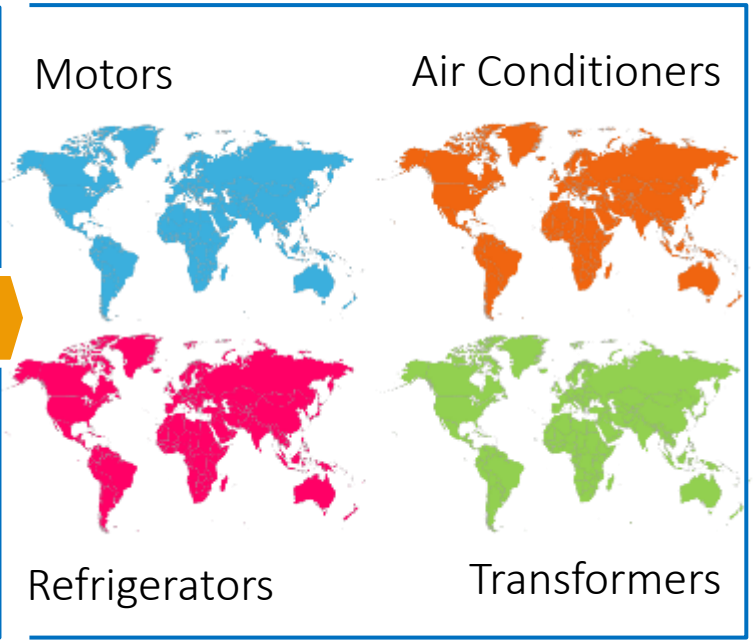
Source: NAMAs in the refrigeration, air conditioning and foam sectors: A technical handbook", GIZ, 2013; LBNL BUENAS, 2014.

Most Developing Countries Do Not Have Policies in Place Today to Leapfrog to Efficient Products

MEPS in 2013: mostly in OECD Countries



Our goal: MEPS in all countries by 2020!



Source: UNEP, 2014

The En.lighten Model: Integrated Policy Approach

Minimum Energy Performance **Standards**

Supporting policies
promoting demand for efficient products incl. innovative financing mechanisms, loans and grants

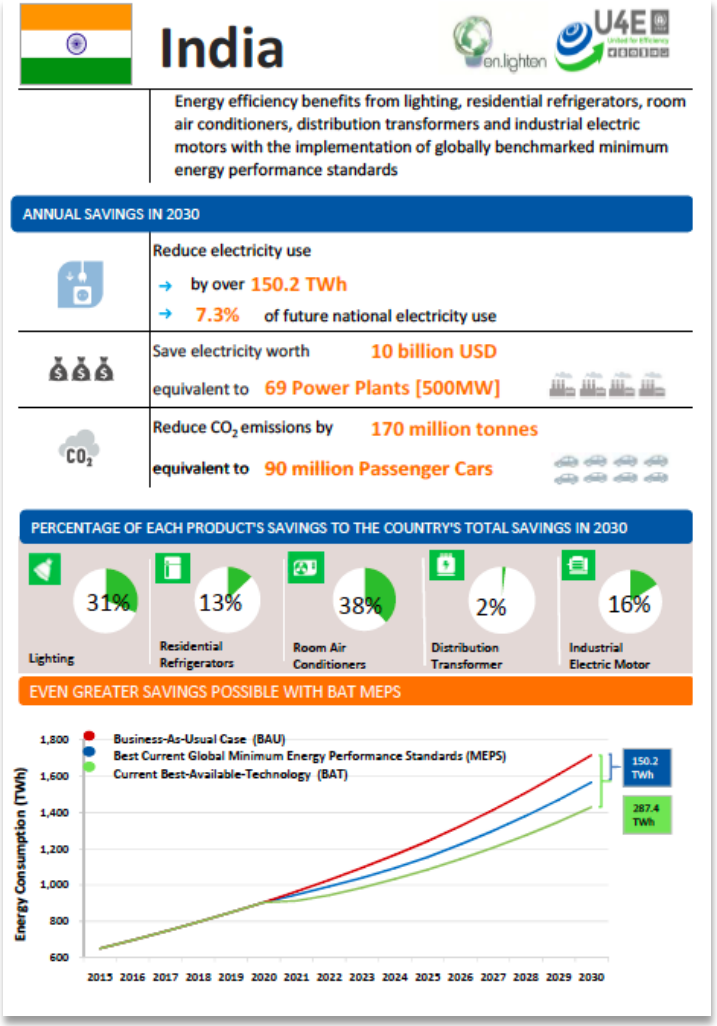
Successful market transformation

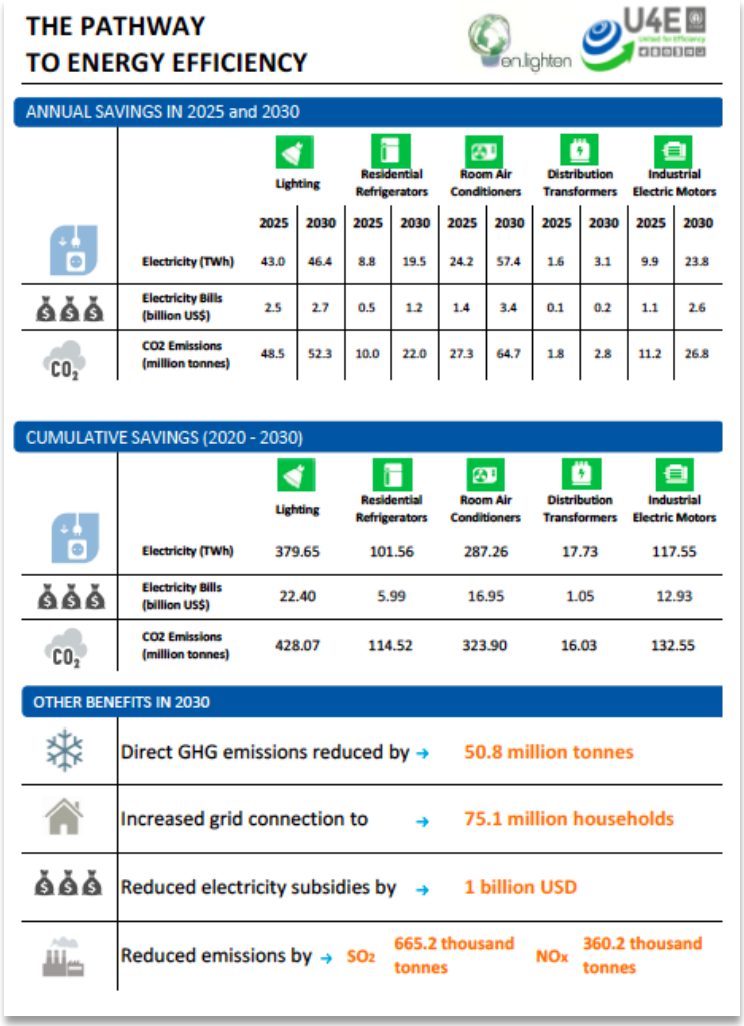
Monitoring, verification and enforcement
programmes discouraging non-compliant products

Environmentally sound life-cycle management
mercury, electronic waste, ozone depleting substances…

Policy Guidance Available for all Products in 2016!

Global Services:
Country Assessments





GEF Child Projects Under U4E

Country	GEF Agency (ies)	Products of focus	GEF Funding	Status (expected start of project activities)
Costa Rica	UNEP	Lighting, air conditioners and refrigerators	$2,000,000	Project preparation (2017 Q1)
Sudan	UNDP	Lighting and air conditioners	$1,770,000	Project preparation (2017 Q1)
Kazakhstan	UNDP	Domestic appliances (except lighting)	$3,500,000	Project preparation (2017 Q1)
Myanmar	UNEP	Lighting and appliances	2,223,578	Submitted to GEF (2018 Q1)
Indonesia	UNEP, UNDP	Lighting	$3,895,873	Submitted to GEF (2018 Q1)
South Africa	UNDP, DBSA	LED lighting and distribution transformers	$10,000,000	Submitted to GEF (2018 Q1)
Tunisia	UNEP	Lighting	$2,500,000	Submitted to GEF (2018 Q1)
Chile	UNEP	Refrigeration	$1,473,762	Submitted to GEF (2018 Q1)

Private Sector Benefits: Economic/Strategic

- Open new markets – and expand existing ones – for most-efficient products
    - Often more expensive and more profitable
- Increased competitiveness from minimum energy performance standards (MEPS): manufacturers of inefficient products excluded from markets
- Regionally harmonized MEPS facilitates trade and reduces compliance costs
- Create awareness among consumers in an effective, non-commercial way that would not be possible by any manufacturing entity on its own
- Seat at the table in global discussions
- Address CSR in profitable way

Private Sector Benefits: Image

- Increase visibility of their brands globally through opening and expansion of geographic markets
- Demonstrate positive impact on one of society's greatest challenges: climate change
- Make use of U4E brand and supporting materials

Private Sector Benefits: Image

Partnering with UNEP to show the way towards more efficient appliances.

Electrolux joins U4E to promote high-efficiency appliances

The International Energy Agency's 2012 Energy Outlook report confirms energy efficiency can provide as much as 50% of the abatement the world needs to keep climate change to two degrees. As a manufacturer, our challenge is to meet the growing need for our products by deploying energy-efficient technologies affordably.

This requires policy frameworks and incentives across the globe, and joint efforts among companies, policy makers and organizations.

That's why Electrolux has joined United for Efficiency (U4E) a public-private partnership led by the United Nations Environment Programme. U4E helps governments in emerging markets develop and implement national and regional strategies for improved energy efficiency.

Electrolux is supporting the initiative with know-how, including data and insights into energy labelling, and how to effectively manage redundant appliances.

Benefits of Regionally Harmonized Standards

- Fewer compliant products
  - Benefits manufacturers – fewer standards to meet
  - Benefits consumers – reduces costs for high-efficiency products
- Accelerates action
  - Shared best practices
  - Shortens timelines for standards development
- Improves monitoring, verification and enforcement (MVE)
  - Regional testing facilities
  - Reduced ability to dump inferior products on neighbor countries
- Provides for scale-up on climate change mitigation action
  - Aggregated CO_2 reduction
  - Action on climate change in cost-effective way through EE

History

1. ICA-UNEP Scoping study for AC and Refrigerators to estimate energy saving potential related to increase of MEPS – 2010
2. Endorsement of “Strategic Framework for the Promotion of Higher Efficient Appliances in ASEAN” by ASEAN Ministers on Energy Meeting (AMEM) – 2011
3. APEC (110K) and EU (1.7 million) Funding secured by ICA – 2012
4. ASEAN SHINE managed by ICA and UNEP – Steering Committee by ASEAN Energy Efficiency and Conversation Sub-Sector Network (EE&C SSN)
5. ASEAN SHINE focusing on promotion of higher efficient Air Conditioners

Achievements to date

- **In 2013, ASEAN Standards for the testing method harmonized to ISO 5151:2010 – one single standard across ASEAN**
- **In 2015, endorsement by AMEM of the ASEAN Regional Policy Roadmap (RPR):**
  - "The ASEAN countries will notify a minimum EER (also refers to weighted EER) of 2.9W/W or CSPF of 3.08W/W by 2020 as mandatory MEPS for all fixed and variable drive ACs below 3.52kWcapacities. The MEPS would be periodically reviewed and revised at an interval of 5 years or less"
  - "The ASEAN countries would evaluate feasibility of incorporating energy performance testing into existing MRA (AHEEERR), or establish new MRAs if necessary by 2020"
- **In 2016, ASEAN countries to endorse national policy roadmaps to implement the RPR above: July-August 2016**
- **2015-2016: capacity building for AC manufacturers and testing labs implemented**
- **Consumer awareness campaigns (starting July 2016)**

Expansion

- Scope of ASEAN SHINE expanded to all EE appliances; RE technologies under consideration
- Establishment of Advisory Committee: IEA (Chair), UNEP, UNDP, SEAD, UL, Australian Government, ASEAN Centre for Energy
- Development of Action Plans for all technologies (under preparation, to be completed in September 2016)
- Organization of Donors Coordination Conference in October 2016 in Bangkok
- Replication in Latin America, LA SHINE, in development under the U4E structure; advancing rapidly
- Other regional SHINE-like programs under consideration – we are looking for partners!

Advisory Committee

ASEAN SHINE

UNEP

iea International Energy Agency

UNDP

Australian Government

UL

ASEAN CENTRE FOR ENERGY ACE

SEAD

Cu Copper Alliance

THANK YOU!

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www.United4Efficiency.org

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