ASEAN Standards Harmonization INitiative for Energy Efficiency
Program Objectives

- Reduction in the electricity consumption from the residential sector
- Reduced emissions of greenhouse gases
- Removal of non-tariff barriers to trade within ASEAN; enhance regional market integration

Increase market share of high efficiency air-conditioners
- Harmonize test methods and energy efficiency evaluation standards
- Harmonize Minimum Energy Performance Standards (MEPS)
- Change consumer purchasing attitudes
Household electricity consumption in ASEAN was estimated at 144,038 GWh in 2007 and is expected to continue growing rapidly in the coming years.

Indonesia, Malaysia, Philippines, Thailand and Vietnam contributed for majority of the region’s HH electricity consumption. Countries such as Vietnam and Indonesia have recorded the fastest growth in total consumption in recent years.

Air-Conditioners is the major source for electricity consumption for households in most countries.

According to the various countries’ statistical offices, air-conditioners are estimated to account for about 50% or more of the total HH electricity consumption in Singapore, Brunei, Philippines and Thailand.

Source: UNEP/ICA 2010
Opportunities

Huge energy saving potential due to low penetration rate of higher efficient ACs

Scenario 1: Harmonization using China's new MEPS (EER cut-off at 3.2)

Est. Technical energy savings: 5,373 GWh

Scenario 2: Harmonization using current PH & TH’s MEPS (EER cut-off at 2.8)

Est. Technical energy savings: 1,928 GWh

- ASEAN Economic Community: momentum to harmonize standards to remove non-tariff barriers to trade
Huge Energy Saving Potential

- Total energy savings in ASEAN per annum amount to 5,373 GWh
- Assuming 4 baht per kWh tariff, total energy savings is 21.5 billion baht

TOTAL COST SAVINGS

USD 716.4 million
or
21.5 billion baht
(at electricity tariffs of 4 baht per kWh)
Program design

Establish the ASEAN SHINE, with Country Chapters

Market Pull mechanism
- WP3: Develop regional policy roadmap
- WP4: Develop national policy roadmaps
- WP7: Consumer awareness campaigns
- Increased demand for higher efficient ACs

Market Push mechanism
- WP2: Harmonize ASEAN standards for testing methods
- WP5: Build capacity of testing labs
- WP6: Build capacity of AC manufacturers
- Increase supply of higher efficient ACs on the market
The ASEAN-SHINE is established and its sustainability is ensured allowing activities to continue in the future and harmonization of EE standards for other appliances.

WP2
The standards for testing methods and evaluation standards related to the energy performance of ACs are harmonized in ASEAN

WP3
A regional policy roadmap for MEPS and HEPS is adopted at the ASEAN level

WP4
National policy roadmaps for implementation and increase of MEPS are developed

WP5
Capacity building for testing laboratories on the new testing and evaluation methods

WP6
Capacity building for local AC manufacturers

WP7
Consumers education and awareness
WP1: ASEAN SHINE established with country chapters

WP2: ASEAN countries already agreed on ASEAN harmonized standards for testing methods (ISO 5151:2010)

WP3: Regional policy roadmap work started (UNEP/CLASP/ICA)
**Sponsor:** European Union (SWITCH Asia), Grant: 1,749,099 EUR

**Program duration:** 2013 - 2016

**Program Lead:** Copper Alliance (European Copper Institute & International Copper Association SEA)

**Technical partner:** UNEP

**Country Partners:**
- Electrical and Electronics Institute (Thailand)
- SIRIM QAS International (Malaysia)
- Research Center for Energy and Environment (Vietnam)
- Integrated Institute of Electrical Engineers (Philippines)

**Associates:**
- 10 ASEAN ministries in charge of energy (EE&C SSN Focal Points)
- Underwriters Laboratories
- CLASP
Thank you

Pierre Cazelles – Program Advisor
Director – Partnerships Asia
International Copper Association
Email: pierre.cazelles@copperalliance.asia
Tel: +86-159-0100-7376

Disclaimer: The document has been produced with the assistance of the European Union. The contents of this document are the sole responsibility of the authors and can in no way be taken to reflect the views of the European Union.