

A Private-Public Partnership to promote sustainable energy equipment and appliances in ASEAN











1. Background

In line with the priorities of the ASEAN Plan of Action for Energy Cooperation, and more particularly with the objectives of the ASEAN EE&C SSN, a Strategic Framework for the Promotion of Higher Efficiency Appliances was developed with the technical assistance of the United Nations Environment Programme (UNEP) and the International Copper Association (ICA); it has been endorsed by the EE&C SSN in May 2011. This Strategic Framework describes a holistic approach to foster a market transformation in favor of higher efficient appliances: harmonization of ASEAN standards (testing methods) to facilitate intra-ASEAN trade on higher efficient appliances, development and adoption of regional policy roadmaps setting long-term aspirational goals and objectives in increasing progressively Minimum Energy Performance Standards (MEPS), development and adoption of national policy roadmaps to define country-specific measures to meet the objectives set out in the regional policy roadmaps, capacity building for local manufacturers and testing laboratories, and consumer awareness campaigns.

In 2012, ICA and UNEP successfully managed to secure funding from APEC and the European Union to implement this Strategic Framework for room air conditioners: the ASEAN SHINE program was born. Managed and coordinated by ICA, ASEAN SHINE is a public-private partnership including UNEP and in-country partners (SIRIM in Malaysia, the Research Center for Energy and Environment (RCEE) in Vietnam, Electrical and Electronics Institute (EEI) in Thailand, and the Integrated Institute of Electrical Engineers (IIEE) in the Philippines. ASEAN SHINE reports to the EE&C SSN, who acts as Steering Committee, with the central role played by the ASEAN Centre for Energy.



Launching of the APEC-ASEAN Harmonization of Energy Efficiency Standards for Air Conditioners report, October 2012



ASEAN SHINE Steering Committee meeting, June 2014

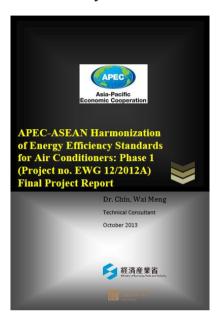




2. Achievements to date

From 2013 to 2016, the following outputs have been achieved by ASEAN SHINE:

- ASEAN standards for the testing methods have been harmonized to ISO5151:2010 (with funding from APEC):
 - Only one standard is now applicable to test the energy efficiency of air conditioners, reducing cost of compliance for AC manufacturers
 - It paves the way for a future harmonization of energy performance standards in ASEAN
 - Lessons will be exported to other APEC economies



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HARMONIZATION OF AIR CONDITIONER STANDARDS IN ASEAN ECONOMIES -

A REGIONAL POLICY ROADMAP

 In October 2015, the ASEAN Ministers of Energy Meeting (AMEM) has endorsed the "ASEAN Regional Policy Roadmap for Harmonization of Energy Performance Standards for Air Conditioners":

- Objective: "To provide clear guidelines in the adoption of policies to promote the use of more efficient air conditioning equipment and define the targets to be achieved by all ASEAN countries with regards to the adoption of harmonized energy performance standards of ACs by 2020"
- "ASEAN countries have agreed for a uniform testing method derived from ISO 5151- 2010. The testing method is to be adopted and notified by
 - countries by 2016, with the exception of Cambodia, Laos, Myanmar to be adopted and notified by 2018."
- "A common evaluation method namely CSPF using ISO 16358-1 may be considered by 2020"
- "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"

- ASEAN ministries in charge of energy are now developing their national policy roadmaps, to be officially adopted during July-September 2016
- Capacity of local AC manufacturers has been built on designing higher efficient ACs
- Capacity of testing laboratories has been built
- National consumer awareness campaigns are being designed and will be launched in August 2016, under official endorsement by the ASEAN ministries in charge of energy

3. ASEAN SHINE beyond 2016

The establishment of ASEAN SHINE has been made possible with a grant from the European Union (1.7 million EUR), which ends in December 2016. The ASEAN SHINE has proven to be a very effective tool to implement actions meeting the ASEAN Member States objectives in terms of advancing energy efficiency for air conditioners. Yet, a lot of work remains to be done to support ASEAN Member States efforts to promote higher efficient appliances and equipment such as lighting, refrigerators, TV, transformers, electric motors.

3.1 ASEAN SHINE Lighting Chapter



In partnership with UNEP and with financial support from Lites Asia (Australian government) and the European Union (Switch Asia), and with the endorsement of the Steering Committee and the EE&C SSN, ASEAN SHINE has already started to

work on efficient lighting. The ASEAN SHINE Lighting Chapter, managed by UNEP, has been established in February 2016. Following the approach described in the Strategic Framework, the ASEAN SHINE Lighting Chapter is organized around the following work packages:

- Work Package 1: ASEAN Regional Lighting Market Assessment (IIEC) (completed)
- Work Package 2: Harmonized test standards for Lighting products (ongoing)
- Work Package 3: ASEAN Regional Lighting Policy Roadmap for MEPS (ongoing)
- Work Package 4: National Lighting Policy Roadmap and Capacity Building Activities for Policy Makers (2016-2017)
- Work Package 5: Capacity Building on monitoring, verification and enforcement for Compliance and Enforcement Authorities (2017-2019)





- Work Package 6: Capacity Building for Local Lighting Manufacturers (2017-2018)
- Work Package 7: Awareness Raising Campaigns and Activities for Endusers (2018 onwards)

3.2 Preparing for the expansion of ASEAN SHINE to other technologies

With financial support from UNEP and the European Union, the ASEAN SHINE team is now conducting a scoping study to evaluate energy saving potential, GHG emission reduction potential, and identify solutions to support market transformation in ASEAN for refrigerators, transformers and electric motors. This scoping study also includes two (2) renewable energy technologies: solar PV and solar thermal.

This study will provide the rationale and recommendations to design action plans in line with the Strategic Framework mentioned above.

3.3 Strategy to secure funding beyond 2016

With the end of the EU grant in December 2016, it is necessary to adopt a clear strategy to secure funding for the implementation of the action plans that are currently being formulated.

An Advisory Committee is being formed, bringing together influential organizations, in order to:

- Provide technical guidance and advisory
- Help mobilize resources
- Enhance coordination of the donor community, as well as NGOs and consultancy active in the field of sustainable energy in ASEAN

The initial members of the Advisory Committee are: the International Energy Agency, UNEP, UNDP, the Australian Government (Energy Division), Underwritters Laboratories, the Super-Efficient Equipment and Appliance Deployment Initiative (SEAD, represented by US Department of Energy), the US Department of State, the ASEAN Centre for Energy, and the International Copper Association.

One of the important task of the Advisory Committee is to organize an annual Donors Coordination Conference to help mobilize resources and create synergies for the implementation of the Action Plans currently being developed.

The International Copper Association funds and operates the ASEAN SHINE Program Management Office (PMO), with an office in Bangkok and country managers in Indonesia, Malaysia, Vietnam and the Philippines.

The ASEAN Centre of Energy helps coordinate actions at the regional level and ensures effective engagement of and liaison with the different ASEAN-level regional fora, including the EE&C SSN, SOME and AMEM.





4. Public-Private Partnership

Funding agency



Coordinator/ Program Management Office:



Implementation partners:













Steering Committee:









Advsory Committee:













Copper Alliance





Programme ID

Project title: **Promotion and Deployment of energy efficient air**

conditioners in ASEAN

Acronym: **ASEAN-SHINE**

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