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Harmonization of energy efficiency standards for air-conditioners and refrigerators in South East Asia

Energy efficiency standards governing the rating of household air-conditioners and refrigerators vary from country to country in ASEAN. These standards are important guides to product purchasing decisions; hence impacting the carbon footprint and energy security for each country. As such, International Copper Association (ICA) undertook a research project, executed by Spire Research and Consulting, to promote harmonized energy efficiency standards in ASEAN. The results of this study were published by the United Nations Development Program (UNDP).

The study focused on household air conditioners and refrigerators, as these devices consume the most electricity in a household. The research provided an overview and comparison of energy efficiency standards in Southeast Asia. It sought to understand local perceptions and attitudes towards the harmonization of standards in ASEAN, as well as identify the drivers and barriers facing harmonization. Key findings are highlighted below.

Indicative potential

There are large potential savings to be reaped from the harmonization of standards within the ASEAN region. The indicative potential for total electricity saving is 13.9Twh, and the indicative potential for greenhouse gas emission reduction is 8,965 thousand tons of carbon dioxide.

Level of receptivity

Despite the benefits from harmonization, no concrete action has been taken to harmonize energy efficiency standards in ASEAN. Awareness of energy efficiency, the existence of standards and the readiness to adopt or implement these standards differs across ASEAN countries. In addition, differences in testing standards and labeling standards across the countries have thrown up more barriers to harmonization.

It was also found that while Singapore, Malaysia and Brunei have the highest level of receptivity towards the harmonization of standards; Thailand, Indonesia, the Philippines and Vietnam have a moderate level receptivity; and Cambodia, Laos and Myanmar are the least receptive.

Benefits and pitfalls of harmonization

Benefits to be realized from the harmonization process include:

- Increased trade flow between countries and greater access to markets, facilitating international trade and economic efficiency;
- Enhanced credibility for the region, making the ASEAN market more attractive for foreign brands; and
- Economies of scale which accrue to manufacturers when they seek a single accredited standard to be used in all ASEAN countries.

Potential pitfalls from the harmonization process include:

- Having a minimum standard that may act as a deterrent to manufacturers exporting a variety of goods (e.g. more stylish but less energy efficient designs) to the region; and
- Reducing the range of cheaper products in the market, as these might be less energy efficient.

Recommendations

Current harmonization efforts in the region have focused mainly on the safety-related attributes of household appliances. Therefore, harmonization efforts on energy efficiency standards can ride on past harmonization initiatives.

The research indicates that air-conditioning standards would be easiest to harmonize, since more than half of ASEAN nations currently reference the same ISO 5151 standard. This suggests that the air conditioning industry should be the primary focus.

A number of countries have also expressed the need for more test laboratories to aid in the implementation of standards. This may warrant attention at the ASEAN level.

Involving all stakeholders and including them in the implementation process will not be easy. However, the benefits to be gained, as conclusively quantified in this report, constitute a strong argument for this effort to be made.

Link to market study report on official UNEP website:

http://www.unep.org/climatechange/mitigation/sean-cc/Portals/141/doc_resources/Harmonization%20of%20standards%20ACs/Regional%20survey%20findings%20Bek%20Chee%20Jin.pdf

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