

Opportunities and the barriers in implementing the proposed Thailand NAMA for energy efficiency in buildings

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Abstract

Objective of this research is to examine the rationale, opportunities and barriers of improving energy efficiency in designated buildings under the framework of Thailand NAMAs. It analyzes the stakeholders' perceived barriers and their rationales. The analysis includes the outcomes from SWOT (Strength, Weakness, Opportunity, Threat) exercise implemented in Thailand NAMAs workshop and their comparison with the analysis based on the literature reviews.

As of Dec 2013, Thailand has not pledged its NAMAs, however, Thailand has already prepared its NAMAs. A remarkable feature of the proposed Thailand NAMA is that the criteria of the domestic and international NAMA are determined by the abatement costs, which were generated from the AIM/Enduse. Improving energy efficiency in the designated buildings is expected to offer the highest potential to reduce CO₂ by 5,909 kt-CO₂ in 2020 through the domestic schemes such as building codes. The challenge which Thailand faces now is how to determine the scope of the NAMAs and the domestic Measurement, Reporting, and Verification (MRV) system of the proposed NAMAs in line with the existing policies. Energy Efficiency Development Plan 2011-2030 (EEDP) is formulated with a target to reduce energy intensity by 25% in 2030, compared with that in 2005. However, the expected emission reduction in large commercial building is rather small. Annual average energy saving is 1,100 ktoe, and annual average avoided CO₂ emission is 6 million tons.

In order to establish the clear scopes, approach for the MRV for energy efficiency in buildings, and institutional arrangement under the framework of NAMAs, this study conducted the barriers analysis about existing laws, policies, and measures for energy efficiency in buildings. It found while Thailand has conducted the policy instruments focusing on building codes, there is no follow-up mechanism in line with the outcomes of energy audit and reporting submitted by energy auditor of each designated building under the existing regulatory mechanism. In addition, there is little financial mechanism targeting the building sectors only. The outcomes of SWOT analysis also showed that the stakeholders saw the potential to improve energy efficiency through the measures under the framework of NAMAs, but they realized that existing institutional and monitoring system was not sufficient to implement the NAMAs.

This study concludes the NAMAs target will not be achieved without MRV system or the ways of enhancing the compliance of end-use energy users. Establishment of precise institutional mechanism is needed for effective action plans and implementation of the NAMAs toward 2020.