

ANALYSIS OF ASEAN ECONOMIES INTENSITY IMPROVEMENT ON OVERALL APEC INTENSITY IMPROVEMENT

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Overview

The sustainable development and use of energy resources continues to be at the forefront of energy policy in ASEAN. ASEAN-APEC economies continue to develop plans and measures to improve energy efficiency across all sectors of the economy. Most economies have followed-through on previously committed action plans to improve energy efficiency; embarked on efficiency awareness raising campaigns; promoted good energy management practices and facilitated investment in energy efficiency.

In 2011, APEC Leaders agreed on an aspirational goal to reduce the energy intensity of the region by 45% by 2035 as compared to 2005. November 2011 at the APEC Ministerial Meeting in Honolulu, Hawaii, the APEC Ministers aspired to meet a new APEC-wide regional goal of reducing the energy intensity of the APEC economies by at least 45 percent by 2035, using 2005 as a base year. (APEC, 2011) This came after reviewing data analysed by the APEC Energy Working Group (EWG) which indicated that APEC is on the path to significantly exceed its previous energy intensity goal. The 45% reduction is an aggregate goal, which recognizes that economies' rates of improvement may vary for many reasons.

The APEC-wide goal of energy intensity reduction does not set specific economy or sectoral targets. It does not specifically oblige the Southeast Asian economies in APEC region to precisely contribute 45% in the overall energy intensity reduction aspirational goal. This paper tries to focus on the intensity improvement in the ASEAN, as the economies in this region is becoming fast growing and driving the growth in APEC (WB, 2015). The analysis will try to assess how the current energy efficiency efforts of the economies in the region will eventually contribute to APEC aspirational goal of energy intensity reduction of 45% by 2035. Energy intensity is most commonly defined as the amount of energy consumption per unit of GDP, as GDP data are readily available and easy to obtain. It is often used as a proxy to analyse energy efficiency improvements; however, many indicators that alter energy intensity may be poor indicators to track improvements in energy efficiency. Changes in economic structure, for example, often have a dramatic effect on energy intensity, but do not necessarily reflect improved efficiency.

Methods

Energy Intensity and Geometric mean return.

Results

- 1) Table 1.1 analyses the final energy intensity reduction annually. In 2013, a reduction of 13.1% was obtained and at this rate using 2005 as the base year, final energy intensity reduction will reach 41.2% by 2035.
- 2) To give a different angle on the analyses of the energy intensity reduction, the final energy demand excluding non-energy demand was also considered. Table 1.2 shows that energy intensity in 2013 in the final energy demand excluding non-energy increased by 9.1% as compared to 2005. Consequently at this rate, the final energy excluding non-energy intensity will post a positive intensity in 2035 at 38.7%

Conclusions

The fast growing economies in the ASEAN region drives the growth of the APEC region. The continuing growth in the region will reflect an equivalent increase in its energy requirement. In this view, economies in the region will increase their efforts to improve energy efficiency and will thus stimulate the achievement of APEC's energy intensity reduction of 45% by 2035.

References

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Tables and Figures

Table 1.1 Final Energy Intensity Analysis

	2006	2007	2008	2009	2010	2011	2012	2013	2005-2013	Trend to 2035
Change in Final Energy (%)	3.1	3.4	0.4	3.9	4.7	1.8	5.0	4.6	30.2	
Change in GDP (2011 USD PPP) (%)	5.7	6.3	4.6	1.8	7.4	4.7	5.8	5.1	49.8	
Change in Final Energy Intensity (%)	-2.5	-2.8	-4.1	2.1	-2.6	-2.7	-0.8	-0.4	-13.1	-41.2

Source : (IEA, 2015), (WB, 2015)

Table 1.2 Final Energy excluding Non-energy Intensity Analysis

	2006	2007	2008	2009	2010	2011	2012	2013	2005-2013	Trend to 2035
Change in Final Energy excluding non-energy (%)	3.5	7.3	-16.0	26.4	4.6	13.5	7.1	12.9	63.4	
Change in GDP (2011 USD PPP) (%)	5.7	6.3	4.6	1.8	7.4	4.7	5.8	5.1	49.8	
Change in Final Energy excluding non-energy Intensity (%)	-5.6	0.9	-19.6	24.1	-2.6	8.4	1.2	7.5	9.1	38.7

Source : (IEA, 2015), (WB, 2015)