

DISCLAIMER

This report was prepared by the Working Group for Analysis of Energy Saving Potential in East Asia under the ERIA (Economic Research Institute for ASEAN and East Asia) Energy Project. Members of the Working Group from the participating EAS region countries discussed and agreed to certain key assumptions and modelling approaches in order to enable harmonisation of the forecasting techniques. These assumptions and modelling approaches may differ from those normally used in each country. Therefore, the projections presented here should not be viewed as official national projections of the participating countries.

The absence of a projection for the Alternative Policy Scenario (APS) for a country does not imply that the country has no energy efficiency and conservation (EEC) policies. It may simply indicate that, at the time of the study, the country had not yet quantified the impacts of their EEC policies.

FOREWORD

Energy security and climate change are very important global issues with a range of socioeconomic, environmental and development dimensions. At the 2nd East Asia Summit (EAS) in Cebu Island of the Philippines, January 2007, the leaders of the region declared that East Asia could mitigate these problems by strong leadership on several countermeasures. These include: a. promotion of energy conservation, b. utilisation of biofuels and c. cleaner use of coal.

Two groups were designated to assist in implementing the countermeasures mentioned above: the Energy Cooperation Task Force (ECTF) and the Economic Research Institute for ASEAN and East Asia (ERIA). ECTF is charged with supporting the efforts of the EAS and its Energy Ministers Meeting (EMM) to promote cooperation on policies to implement these countermeasures. ERIA is in charge of studying the potential impacts of the countermeasures. ERIA is focusing on energy studies in two areas: first, promotion of energy conservation and second, utilisation of biofuels.

This report was prepared by the Working Group for Analysis of Energy Saving Potential in East Asia under the ERIA Energy Project. The report covers all the research activities of the Working Group from October 2008 to June 2009, including the methodology used to estimate the impacts of a range of energy saving goals, action plans and policies, analysis of results and potential policy recommendations to the ECTF. This report extends and enhances the analysis of the working group undertaken in 2007.

This report contributes to mitigating problems related to energy security and climate change through increasing understanding of the potential for energy savings of a range of energy efficiency goals, action plans and policies. A number of key insights for policy development are also discussed.

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LIST OF ABBREVIATIONS AND ACRONYMS

ABARE = Australian Bureau of Agricultural and Resource Economics
APS = Alternative Policy Scenario
ASEAN = Association of Southeast Asian Nations
AUS = Australia
BAU = Business as Usual
BRN = Brunei Darussalam
CCS = Carbon capture and storage
CHN = People's Republic of China (China)
CO₂ = Carbon dioxide
EAS = East Asia Summit
EEC = Energy efficiency and conservation
EMM = Energy Ministers Meeting
ERIA = Economic Research Institute for ASEAN and East Asia
GDP = Gross domestic product
GHG = Greenhouse gas
GTEM = Global Trade and Environment Model
IEEJ = The Institute for Energy Economics, Japan
INA = Indonesia
IND = India
IPCC = Intergovernmental Panel for Climate Change
JPN = Japan
KEEI = Korea Energy Economics Institute
KHM = Cambodia
KOR = Republic of Korea
LAO = Lao People's Democratic Republic (Lao PDR)
LEAP = Long-range Energy Alternative Planning System
LEDS = Long-Term Energy Demand System
LET = Low emission technologies
MAS = Malaysia
MMR = Myanmar
Mtoe = Million tonnes of oil equivalent (1 Mtoe = 41.868 PJ)
Mt C = Million tonnes of carbon (may be converted to million tonnes of CO₂ by multiplying by 44/12)

NZL = New Zealand

OECD = Organization for Economic Cooperation and Development

PHI = Philippines

SIN = Singapore

THA = Thailand

toe = Tonnes of oil equivalent

t C = Tonnes of carbon

VNM = Viet Nam

WG = Working group

