

Preface



The ASEAN and East Asia grouping faces tremendous challenges when it comes to the future energy landscape and in trying to determine how the energy transition will embrace new architectures including sound policy and technologies to ensure energy access with affordability, energy security, and energy sustainability. The economy of the East Asia Summit (EAS) countries has been hit by the coronavirus (COVID-19) pandemic, but energy demand growth is expected to bounce back strongly as the economy recovers after 2021. Thus, all decisions and energy policy measures will need to be weighed against potentially higher energy costs, affordability, and energy security risks for the post-Covid-19 era. ERIA will release its short-term energy outlook for EAS17 taking account of the impact of the pandemic in a separate report.

ERIA continuously updated the long-term energy outlooks (up to 2050) of the EAS17 countries in 2019–2020, based on national energy data and both existing and aggressive energy policies, in other word targets of energy efficiency and conservation (EEC) and renewable energy (RE). This report, produced to reflect the updated energy outlook results, was prepared by the Working Group for Analysis of Energy Saving Potential in East Asia under the ERIA Energy Project. It covers all research activities of the Working Group from August 2019 to May 2020, including methodology, estimated impacts of current energy saving goals, and policy recommendations to the EAS/ECTF.

It is highlighted that although EAS17 countries will rely on fossil fuels until 2050, the energy mix composition will change to more renewables and clean fuels. According to the previous EAS energy outlook, coal was dominant, followed by gas in terms of power generation. But this latest outlook shows a declining trend of coal due to a rapid increase of gas and Variable Renewable Energy (VRE) following of policy changes in EAS 17 countries.

To achieve sustainable energy development in EAS17, the clean use of fossil fuel through deployment of clean technologies is indispensable for decarbonising emissions. In addition, use of renewables, increasing energy efficiency, and use of new energy technologies such as CCUS/carbon recycling and hydrogen should be accelerated along with the adoption of clean technologies in the medium to long term in the EAS17's future energy system. Investment in energy efficiency will also help to avoid the building of more power plants.

We hope this report will contribute to mitigating the problems related to energy security and climate change by increasing understanding of the potential for energy saving of a range of energy efficiency goals, action plans, and policies. Several key insights for policy development are also discussed in the report. ERIA will include commercially available energy technologies in future such as CCUS and hydrogen into the next EAS energy outlook modelling.



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