

Executive Summary

It is assumed that the demand for electricity of member states of the Association of Southeast Asian Nations (ASEAN) will be increasing in the future. ASEAN member states have to achieve an appropriate power supply mix while at the same time achieving energy supply security, economic efficiency, and environmental protection (3Es). This study aims at suggesting possible policy tools to realise such an appropriate power supply mix:

- The applicable policy tool for achieving the electricity mix target differs by a country's developing stage and market model.
- Therefore, a simple copy and paste of policies will not work effectively; thus, each country/region needs to understand its own situation first.
- It is suggested that each government and/or region formulate a vision for its future electricity supply mix in order to indicate a preferable direction of investment.
- For the industry side, life cycle cost evaluation in power station investment is recommended to compare the true value of different investment options.

We first analyse ASEAN member states' existing market structures and relevant policy implementation mechanisms to control their power supply mix. We then analyse the required policy measures and market/industry structure to realise a balanced electricity supply mix based on European Union countries' experience.

While most ASEAN member states have adopted a single buyer system in which the government could easily control its market, countries such as Singapore have introduced competition even into the retail market. Although a liberalised market is enabled to enhance economic efficiency, it is unsuitable for promoting infrastructure development and to build a balanced electricity supply mix.

Given the diverse situations in ASEAN member states' market models, it could be considered desirable to first adopt a model such as the National Monopoly Model to prioritise the creation of infrastructure and a balanced electricity mix, and then later move forward incrementally with the creation of systems that emphasise economic efficiency.