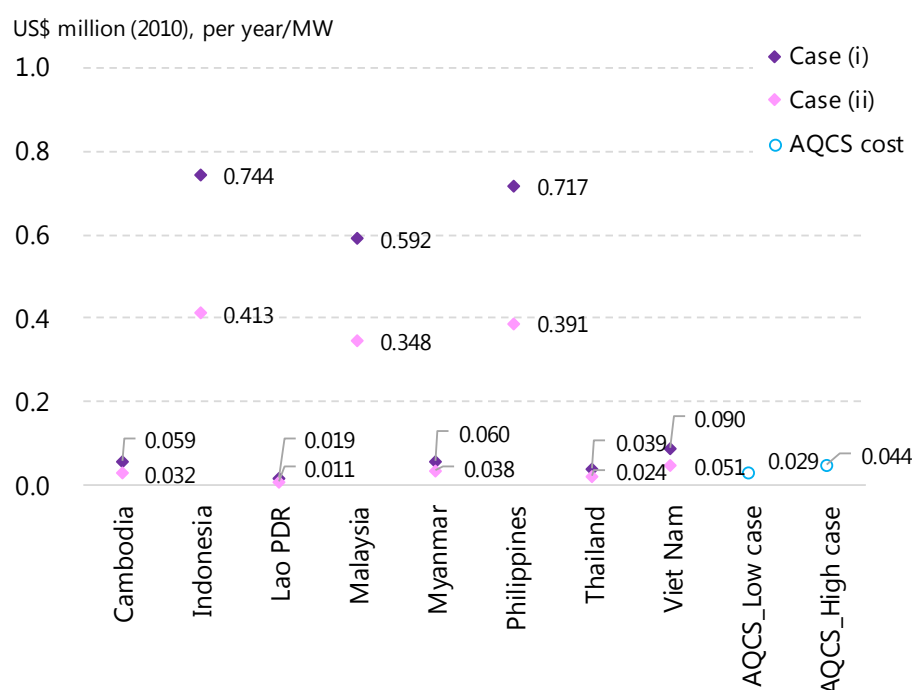


Executive Summary

This study analyses the cost and benefit of more-stringent air emission standards for coal-fired power plants. The cost is assumed to be the investment amount needed for a typical air quality control system (AQCS) to comply with strengthened air emission standards. The benefit is the reduced health impact in monetary terms thanks to better air quality. In the countries surveyed for this study, the potential benefit gained by tightening air pollutant emission standards often exceeds the cost required to install AQCS. In many Association of Southeast Asian Nations (ASEAN) members, tightening emission standards for coal-fired power plants and installing AQCS to conform to such standards may be considered economically rational.

Figure: Results of Cost-and-Benefit Analysis



AQCS = air quality control system, Lao PDR = Lao People's Democratic Republic.
 Note: Case (i) = most strengthened emission standard. Case (ii) = half of existing emission standard.
 Source: Author.

Coal-fired power generation is forecast to increase in ASEAN countries until 2040. They should install AQCS in coal-fired power plants that started operating in or after 1990. Because financing from overseas financial institutions for coal-fired power generation-related technology is often no longer feasible, financing should be procured locally. The government should declare its support for coal-fired power generation and AQCS to encourage local

financial institutions to fund new coal-fired power plants and related technology such as AQCS. To enhance the investment capacity of local electric power companies, government must withdraw energy subsidies to encourage sound management. Investment decisions for large-scale infrastructure and facilities, including AQCS, will become more difficult for electric power companies if they are placed in a competitive market where future profitability is uncertain.

Investment in coal-fired power generation–related technology is complicated where multiple political issues exist simultaneously. However, for ASEAN countries, where energy demand continues to increase along with economic growth, coal-fired power generation will continue to be an important power source because local resources can be utilised or fuel costs are low. ASEAN policymakers will be required to tighten air emission standards for coal-fired power generation at the right time and on the right scale, and to make coal use sustainable.