Executive Summary

The Economic Research Institute for ASEAN and East Asia (ERIA) and the International Energy Agency (2013) estimate that fossil fuel subsidies amounted to US$51 billion in Southeast Asia in 2012. It is widely accepted that fossil fuel subsidies encourage wasteful energy use and burden government budgets. They also defer investment in energy infrastructure and efficient technology, and undermine renewable energy undertakings. While some ASEAN countries have acted to remove the subsidies, governments must take care in doing so as removing subsidies can often be politically sensitive. On the other hand, energy subsidies incentivise consumption and can result in increased energy demand. When the subsidies are inefficient, they can lead to fiscal pressure, harmful emissions, and potentially hamper sustainable green growth in East Asia Summit countries. Reducing subsidies should encourage more energy efficient consumption, have positive impacts on international energy prices and energy security, and make renewable energy and technologies more competitive. The environment and society should also benefit from reductions in local pollution and greenhouse gas emissions.

ERIA undertakes this study at a time when countries in ASEAN and East Asia, such as Malaysia, Indonesia, Thailand, China, and India, are embarking on energy reforms by removing their energy subsidies.

For leaders and policy-makers, energy subsidy reforms pose a challenging task as they involve positive impacts in the long term, but negative impacts on the economy and society in the short term.

The key findings suggest potential economic impacts of removing the energy subsidies:

For Malaysia's case, either a petroleum or gas subsidy removal or both would improve economic efficiency and increase real GDP by up to almost 1 percent in the short term. The immediate impact would be that the budget deficit would be greatly reduced after removing the government-funded petroleum subsidy.

For Thailand's case, the removal of fossil fuel subsidies, with reallocation to households and the government budget, is projected to have a negligent impact on the country's gross domestic product (GDP) in the short term. Accordingly, policy-makers do not need to be concerned when deciding whether to implement the reforms.

For India's case, the government wants to remove subsidies for liquefied petroleum gas (LPG) as LPG is used as the primary cooking fuel by urban and rural households, as well as commercial establishments. However, the LPG subsidy seems to benefit the rich more than the poor as most of the subsidy share goes to benefiting urban dwellers (69 percent share of the LPG subsidy). The study's findings suggest that removing the LPG subsidy would have little impact on the rate of economic growth. Thus, this supports the removal of the energy subsidy if the government wishes to pursue it.

For China's case, the country's total energy subsidies in 2010 accounted for 4.7 percent of GDP. The coal subsidy was the highest, accounting for 1.97 percent of total GDP, followed by the electricity subsidy, which accounted for 0.73 percent of total GDP. The study focuses on the removal of energy subsidies in China's iron and steel industry. The findings suggest that removing energy subsidies will induce costs, and thus require technological innovation for higher energy efficiency through aggressive policy support. The study also suggests that removing the energy subsidy could correct negative environmental externalities and improve social welfare in China.

The above studies, however, point out that removal of the energy subsidies will induce costs at all levels, and households will be worse off in the short term due to higher price levels. Therefore, careful, compensating policies are needed:

1. *Targeting*. While the reform of energy subsidies shows positive signs, energy subsidies will need to be targeted at population groups that need energy for their basic needs, such as cooking, lighting, and transportation.
2. *Transparency*. It is important that governments publicise their use of cash transfers to support the poor during the gradual removal of the energy subsidies. Transparency will help to garner public support during the reform process. Public campaigns and education outreach will be needed to clearly show how energy subsidies impact welfare, discourage investment, and reduce competition.
3. *Consistency*. Well-established programmes to monitor progress and mitigate any negative impacts will be needed. Reporting on, monitoring, and disseminating information on the reform process with clear timeframes, sector by sector, will allow all stakeholders to envisage the costs they and their businesses will incur in the future. This will ensure greater success for the reform programme. The reform process will benefit welfare, investment, and future growth, so government strategies need to build on these arguments and facts to show the public the benefits in a transparent and timely manner.
4. *Policy support*. Policy support and investment in efficient technologies, including environmental technologies, are key to promoting firm competitiveness due to lower energy consumption and savings.