KEMENTERIAN TENAGA DAN SUMBER ASLI

KERATAN SURAT KHABAR

SURAT KHABAR	:	STAR BIZ			
TARIKH	:	19/11/2021 (JUMAAT)	MUKA SURAT	:	9
JABATAN	:	-			

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Greater energy efficiency a vital cog for change

Sectors play a crucial role in Indonesia's energy transition

JAKARTA: Indonesia has expressed its intention to transition from coal to clean energy for power generation, but greater energy efficiency is crucial for the country to achieve its carbon emission goals, experts say.

Elrika Hamdi, an energy economist with the Institute for Energy Economics and Financial Analysis, told *The Jakarta Post* that energy efficiency should be the first step in the energy transition.

She added that other countries, such as China, tended to focus on reducing industry's energy intensity before shifting from fossil energy to renewables.

In other words, they address the demand side of the energy market – how much and how effectively energy is used – before tackling the supply side. The sectors of transportation and industry account for the lion's share of final energy consumption in Indonesia at 45% and 34%, respectively, according to 2020 data from the Energy and Mineral Resources Ministry.

Therefore, it is necessary to encourage investment in energy-conservation projects for the industrial sector, Elrika said, noting that that sector was expected to reduce its final energy consumption by 17% from a business-as-usual scenario, according to the government's National General Energy Planning road map.

From 2015 to 2019, investment in the energy-efficiency sector in Indonesia amounted to 396.16 billion rupiah (US$28mil or RM116mil), according to the same data, which is only a fraction of investment possibilities totalling US$154.35mil (RM643mil) identified by the ministry.

According to the same 2020 energy ministry data, energy audits and energy conservation for industry are deemed the biggest business opportunities, accounting for US$75.65mil (RM315mil) and US$26mil (RM108mil), respectively, of the total investment potential.

Incentives and disincentives were essential for encouraging investment in the energy-conservation sector, Elrika said. She suggested that the government consider raising electricity prices or imposing penalties on industries with excessive energy consumption.



Carbon emission goals: Vehicles in morning rush hour traffic in the central business district in Jakarta. The transportation sector accounts for the lion's share of final energy consumption in Indonesia. — Bloomberg

"It takes a great deal of political will, because this would not be a popular measure and would be expected to have significant social and economic impacts," she told the *Post* in a text message.

Furthermore, Elrika suggested that the government reduce or waive import duties for energy-efficient goods or machines, such as light emitting diode lamps and inverter air conditioners, to make energy-efficient goods more competitive.

The energy ministry should also consider giving industries and commercially run buildings a free or subsidised Investment Grade Energy Audit (IGEA) to ascertain their energy efficiency, she said.

The energy ministry devised the IGEA audit mechanism for buildings, industries and energy users to increase energy efficiency through several analyses, including energy use and identification of energy-conservation opportunities.

Nick Eyre, a research director at the Oxford-based Centre for Research into Energy Demand Solutions, said in a report published in 2019 that energy transition to a zero carbon-emission energy system required both a shift to renewable energy and a major increase in energy efficiency.

"However, little attention has been paid to energy efficiency in Indonesia, because there are many ways to implement energy efficiency," said Elrika, alluding to the complexity of estimating the effects.

As Jean-Pascal Tricoire, chairman and CEO of Schneider Electric, explained in an article for the World Economic Forum: "Energy efficiency is less well-understood, because its origins and effects are distributed across millions of actions and sites, thus harder to visualise, measure, aggregate, incentivise or legislate than, for example, car and heating systems' electrification."

Agus Praditya Tampubolon, project manager for clean, affordable and secure energy for South-East Asia with the Institute for Essential Services Reform, said energy service companies (ESCOs) had the potential to push energy-efficiency programmes, but this was hindered by a lack of specific regulations on the matter in Indonesia.

"Nevertheless, the government has realised the importance of comprehensive data to develop energy-conservation indicators," Agus told the Post.

He added that the energy ministry had collaborated with the International Energy Agency to provide training on energy efficiency indicators for policymakers and had established the minimum energy performance standard to improve household energy efficiency.

On the other hand, there are challenges to encouraging greater energy efficiency in Indonesia, according to Agus, including low electricity prices and a lack of rules on ESCOs, which negatively impact funding of energy-efficiency projects.

"Cheap electricity makes energy-efficiency programs less attractive," he said. — The Jakarta Post/ANN