Executive Summary

Cambodia National Energy Statistics, containing historical national energy balance tables (EBTs) from 2010 to 2015, was published in 2016 with the strong support of the Economic Research Institute for ASEAN and East Asia (ERIA). It was then updated to 2016–2018 under the collaboration of ERIA and the two departments under the Ministry of Mines and Energy (MME): the General Department of Energy (GDE) and the General Department of Petroleum (GDP-MME). The Cambodia National Energy Statistics respects nationally available energy supply and demand data and applies some estimations to maintain the quality of the data.

The statistics is used to develop the country's energy outlook model based on econometrics. But coverage of the historical period is just 9 years, and it is not enough to estimate energy demand formulas applying the ordinary least squares method. In this regard, the GDE and GDP-MME agreed to extend the historical coverage of the statistics from 2000 to 2019.

The GDE provides nationally available energy data before 2010 on coal, electricity, and biomass. On the other hand, the GDP-MME provides petroleum data, while import data come from the Customs Office. But the energy data before 2010 supplied by the GDE and GDP-MME were limited, so ERIA estimated missing data by paying attention to historical consistency.

The longer historical energy data set reflects the following energy demand–supply analysis. The total final energy consumption (TFEC), indicating its growth rate during 2000–2010, is 6.6% per year, and during 2010–2019, 7.9%, so Cambodia increased its energy demand rapidly after 2010. If biomass is excluded, the rate in 2000–2010 is 9.9% and 11.2% in 2010–2019. Demand for conventional energy, such as oil and electricity, remarkably increased from 2000 to 2019, especially electricity, at 17.9% annually. As a result, the total primary energy supply (TPES) increased by 5.8% annually during 2000–2010 and 8.0% during 2010–2019 showing the same trend as the TFEC. Due to a significant rise in electricity demand, Cambodia rapidly increased hydropower and coal power generation from 2010 to 2019. Liquefied petroleum gas (LPG) also marked a higher ratio in 2000–2019; it is used for cooking in the residential and commercial sectors and by the road transport sector, such as in three-wheel tuk-tuks. But traditional biomass has been phased out from the Cambodian market. As a result, the TPES without biomass increased by 11.1% from 2000 to 2019 and is much higher than the economic growth rate. Thus, Cambodia urges the promotion of energy efficiency and conservation, as contained in the publication *Energy Efficiency and Conservation Master Plan for Cambodia*, prepared with ERIA's support.

The new country's business-as-usual (BAU) energy outlook model has been updated based on the longer historical data set and the latest future macroeconomic assumptions. But the outlook results are moderate compared to the previous results. For example, the TPES growth rate in 2019–2050 is 5.4% per year compared to the previous 5.6% in 2018–2050 due to different gross domestic product (GDP) assumptions, which are 6.7% in this revised case

and 6.4% in the previous one. In addition, the data coverage is extended from 9 to 19 years, so the elasticity between GDP and energy consumption becomes better, from 0.875 in the earlier results to 0.8 in the current results. Thus, a more extended data coverage provides better energy outlook results than shorter data coverage when we apply the econometrics approach.