

## **Performance Audit of Energy Transition**

### **Audit Objective:**

To assess the management of coal, natural gas, and renewable energy in electricity sector development to ensure the energy availability, affordability, and sustainability.

### **Audit Scope:**

Activities related to management of coal, natural gas, and renewable energy in electricity sector development to ensure the energy availability, affordability, and sustainability from 2020 to 2022.

### **Audit Criteria:**

The criteria are derived from relevant regulation, best practices, and international convention related to energy management and development, which consist of planning and regulation on primary energy management, energy optimization, and environmental aspects of energy management. The criteria addressed the following aspects:

1. Policy and strategy;
2. Funding and fiscal instruments;
3. Research and innovation; and
4. Infrastructure development.

### **Significant Findings:**

1. The policy to pursue 23 percent renewable energy in the National Energy Mix could increase the production cost of electricity at about 118,15 percent, which eventually increase the energy subsidy that should be borne by the Government. Moreover, issues related to risk mitigation on financial support and solar power development are also identified.
2. Based on the current power plant development progress and projection of power plant operation readiness, it is estimated that the electrical system would be in deficit condition if the condition was persistent and not properly mitigated. Furthermore, issues related to the management of natural gas and renewable energy could compromise the commitment to achieve net-zero emission as well as negatively impact the energy security and affordability. The issues include the fulfilment of local content policy for renewable energy and delayed progress for natural gas infrastructure.
3. Greenhouse gas emissions from energy sector has been estimated by secondary data sources, instead of the available primary data.

### **Audit Recommendations:**

We recommended, among others, that the Government improve coordination with relevant ministries and agencies to develop a comprehensive roadmap on energy transition and improve the monitoring of infrastructure development and greenhouse gas emissions.

**Management Response:**

The management accepted the recommendations and will follow up accordingly.