



Indonesia, a major IEA association country at the heart of our efforts

Deep policy dialogue between IEA and world's fourth most populous country covers power sector transmissions, energy efficiency, and Indonesia's G20 Presidency



Our Net Zero Roadmap, developed with the Ministry of Energy and Mineral Resources (MEMR) of Indonesia, directly informed the country's Just Energy Transition Partnership (JETP)



The Agency is identified as a key partner in the JETP's implementation, leading the Technical Working Group and participating in the Policy Working Group



Strategic partner to the Indonesian government's presidency of the G20 in 2022 and ASEAN in 2023



The IEA's Energy Sector Roadmap to Net Zero Emissions in Indonesia reflects the IEA's status as the global authority and was conducted hand-in-hand with my Ministry"

Arifin Tasrif
Minister of Energy and Mineral Resources of Indonesia

Key facts


4th

most populous country in the world

4th  | 2050

Expected to become the 4th biggest economy in the world by 2050

Largest energy producer and consumer in Southeast Asia

18% 

current share of renewables in power generation

1 Gt /Year 

Energy emissions to grow about 1 Gt/year by 2050 if no further policy action

► **IEA Net Zero Roadmap underpins the Indonesia JETP**

The report, jointly developed with the MEMR, directly contributed to the JETP’s ambitious objectives. The key targets in the JETP were developed alongside the roadmap, notably the commitments to reach peak emissions in the electricity sector emissions at 290 Mt and to achieve a 34% share of renewables in electricity generation by 2030.

Indonesia’s Minister of Energy and Mineral Resources and the IEA Executive Director launched the report at the G20 Energy Transitions Ministerial Meeting in Bali and signed a Joint High-Level Statement setting out a shared vision of Indonesia’s path to net zero that draws on the Roadmap’s findings. Following a formal request from the Government of Indonesia to serve as Strategic Advisor in the JETP Secretariat and to Chair the Technical Working Group, the IEA has been working extensively with various Indonesian stakeholders, including the MEMR, MARVES, and PLN, as well as with international partners, to support the implementation of the JETP.

► **Designing energy efficiency standards**

In March 2023, the MEMR announced plans to introduce fuel economy standards for trucks, with the IEA providing policy guidance and analytical support. Freight transport by road plays a central role in Indonesia’s economy and is a major source of energy demand, in particular from oil. Improved energy efficiency from trucks could help decouple Indonesia’s transport activity from energy consumption. Fuel economy and CO₂ emissions standards could reduce fleet-wide average fuel consumption of Indonesia’s heavy trucks by 17% by 2030. Fuel economy standards for vehicles and increased electrification can reduce the country’s oil demand by over 70 million barrels by 2030 and around 420 million barrels by 2050. This translates to savings of approximately USD 5.6 billion and USD 33.6 billion, respectively, based on current oil prices.



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► **Power sector transitions – direct support for policy and implementation**

The IEA was invited by the MEMR to support the implementation of a presidential regulation on renewable energy. The Agency delivered extensive policy advice on Indonesia power system enhancement and renewables integration in liaison with the MEMR, PLN and other national institutions. The IEA also delivered a detailed analysis of the Java-Bali power system and supported the delivery of a 145 MW Cirata floating solar project. The Agency’s work on attracting private investment in transmission systems provided input for a renewable energy law in Indonesia, issued at the end of 2022.

► **Extensive support for Indonesia’s 2022 G20 presidency and ASEAN Chairmanship 2023**

As G20 president in 2022, Indonesia invited the IEA to assist in shaping energy transition discussions. The IEA provided analysis and recommendations on net zero pathways, clean energy technologies, investment, and global energy markets. We also supported the MEMR in G20 side events on various topics like clean energy transitions, carbon capture utilisation and storage (CCUS), energy security, biofuels, energy efficiency, and clean energy investment. Notably, the IEA played a crucial role in the inaugural G20 Energy Transitions Ministerial Meeting in Bali in September 2022. As a strategic partner to ASEAN, the IEA has been working extensively to support Indonesia’s ASEAN agenda with a large programme of joint work and capacity building on topics including regional power system integration, energy efficiency, regional oil and gas security, and CCUS, among others.

Opportunities for engagement

- **Integrating variable renewables** - The IEA is helping to enhance PLN’s ability to manage and integrate a greater share of variable renewable energy into the grid.
- **Implementation of fuel economy standards for trucks** – The IEA continues to support the development of policies that will help Indonesia to achieve the efficiency and electrification in transport needed to advance towards its net zero objectives.
- **Increasing energy efficiency in the country** – The IEA has ambitious plans to continue to support Indonesia in policy, regulatory, and exploratory work on increasing energy efficiency across sectors.

This work is supported by the **Clean Energy Transitions Programme**, the IEA’s flagship programme for taking action to achieve a clean energy transformation worldwide.

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