

Indonesia: How to Boost Investment in Renewable Energy

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Norwegian Institute of International Affairs (NUPI) (2020)

Stable URL: <https://www.jstor.org/stable/resrep26573>

Accessed: 02-12-2025 07:01 UTC

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Policy Brief

No. 06 / 2020



ASEAN Centre for Energy
One Community for Sustainable Energy

Indonesia: How to Boost Investment in Renewable Energy



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<http://dx.doi.org/10.13140/RG.2.2.11060.07047>

Action plan to attract investment in renewable energy in Indonesia

- Remove subsidies for fossil fuels
- Establish a ministry of renewable energy
- Prioritise renewables in the regulatory framework
- Improve and streamline grid management
- Mobilise domestic banks to support renewable energy
- Prioritise market entry for investors

Indonesia, the largest country in Southeast Asia, has considerable renewable energy potential. However, this potential remains largely underexploited. Fossil fuel subsidies are a major obstacle to the deployment of renewable energy on a large scale [1]. Investment in renewable energy is limited compared to some regional peers. For instance, Vietnam attracted USD 5.2 billion of investment in renewables in 2018, while Indonesia drew only USD 0.8 billion [2].

Indonesia has set a target of 23% renewables in the energy mix by 2025 and 31% by 2050, starting from 7% in 2018 [3,4]. The International Renewable Energy Agency (IRENA) estimates that to fully realise its renewable energy potential, Indonesia needs USD 16 billion in investment in renewable energy capacity every year between 2015 and 2030 [3]. At the same time, massive scaling-up of renewables could also save USD 16–52 billion annually when the mitigated impacts of climate change and air pollution are taken into account [3]. Currently, Indonesia's capacity for governing renewable energy is limited. In the Index of Geopolitical Gains and Losses after energy transition (**GeGaLo Index**), Indonesia is ranked no 119 out of 156 countries. Thus it would benefit from improving its renewable energy governance [5].

With this in mind, we propose six actions that could help Indonesia accelerate the expansion of renewables and join other emerging economies in the global competition to attract renewable energy investment.

Action 1: Remove subsidies for fossil fuels

As long as fossil fuels are subsidised, the playing field will not be level for renewables. Removing subsidies can be politically sensitive and difficult, but there are many international cases to learn from [6].

Action 2: Establish a ministry of renewable energy

Indonesia could restructure its energy governance system in favour of more renewables. The Directorate General of New Renewable Energy and Energy Conservation is the main government body responsible for renewables and is part of the Ministry of Energy and Mineral Resources (see Figure 1). It has few resources and lacks the decision-making power to manage renewable energy policies effectively. Indonesia could therefore establish a ministry of renewable energy or a similar high-level institution and allocate more human and financial resources to it. Such a structural change in the energy governance system would send a serious signal about Indonesia's prioritisation of renewable energy and attract more investors [7]. India is a case in point, as its creation of such a ministry helped to attract significant investment and accelerate renewable energy deployment. The ministry can be viewed as a powerful tool to effectively govern and implement policies aimed at upscaling the adoption of renewable energy. A small government body (e.g. energy ministry department) usually has limited resources, weak management capacity and decision-making power to successfully manage a growing renewable energy sector.

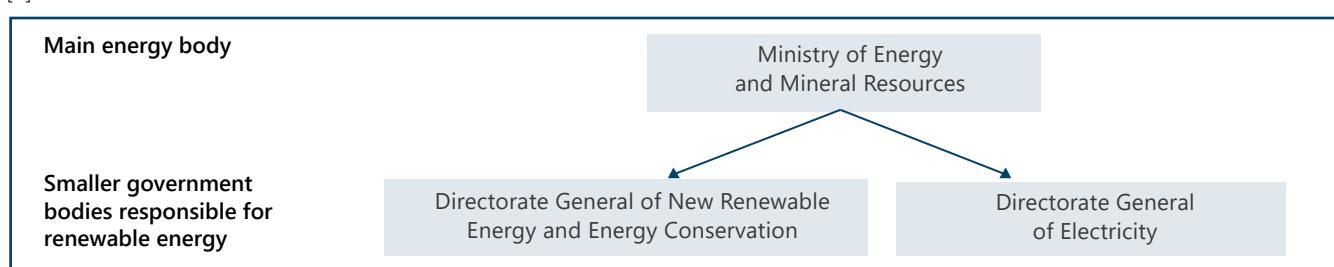


Figure 1. Current energy governance in Indonesia

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Table 1. Indonesia's regulatory framework compared to other ASEAN countries (2020)

Type of policy		Philippines	Vietnam	Indonesia	Malaysia	Thailand	Singapore	Myanmar	Lao PDR	Cambodia	Brunei Darussalam
Regulatory policies	Renewable energy in INDC or NDC	●	●	●	●	●	●	●	●	●	●
	Renewable energy targets	●	●	●	●	●	●	●	●		●
	Feed-in tariff/auctions/premium payment	●	●	●	●	●				●	
	Net metering/billing/direct consumption-supply	●	●	●	●		●				
	Biofuel blend obligation/mandate/target	●	●	●	●	●					
	Electric utility quota obligation/RPS	●	●	●	●						
	Tradable REC		●								
	Renewable heat obligation/mandate										
Fiscal incentives and public financing	Tax incentives	●	●	●	●	●	●	●	●	●	
	Public investment/loans/grants/subsidies/rebates	●	●	●	●	●	●		●		
	Reductions in sales, CO ₂ , VAT or taxes	●	●	●	●	●		●			
	Tendering	●		●	●			●			
	Investment or production tax credits	●	●	●							
	Energy production payment	●				●					

Sources: [10,11].

Action 3: Prioritise renewables in the regulatory framework

Renewable energy is part of Indonesia's Nationally Determined Contribution (NDC) under the Paris Agreement [8]. The country has introduced most of the important regulatory policies and fiscal mechanisms in accordance with best policy practices (see Table 1). For example, in 2013 feed-in tariffs were launched [1]. This, however, has not translated into rapid growth in renewable energy capacity. The feed-in tariff did not trigger much interest among power producers. One of the major reasons is that renewable energy power producers have not been prioritised vis a vis fossil-fuel power producers in the regulatory framework. Indonesia could improve the provision of incentives and regulatory support for renewable energy, as it is among the ASEAN members states that has made least progress in this area [9].

Immediate measures to improve the situation could be to prioritise grid access for renewable energy; prioritise the dispatch of power projects based on renewable energy sources; create more attractive insurance mechanisms for renewable energy producers in case of curtailments or grid disruptions. To improve the competitiveness of renewables, Indonesia could raise the production tax credits in renewable energy projects. Also, renewable energy electricity generation costs remain high compared to subsidised electricity generation from coal and this would also need to be solved.

Action 4: Improve and streamline grid management

Indonesia could improve the management of its grid infrastructure. Currently, it is highly fragmented. The transmission and distribution networks are ill prepared to integrate electricity from renewable energy sources. There is lack of bankable projects in off-grid areas because of the weak power system design, limited operational and maintenance support and poor resource assessment [3]. The Indonesian government could also address issues related to land acquisition permits that slow down the implementation of renewable energy projects [1].

Action 5: Mobilise domestic banks to support renewable energy

Domestic investors and the domestic banking system could be mobilised to support the renewable energy sector. Currently, local banks are reluctant to finance renewable energy capacity and generation projects [3]. It is thus important for the government to provide incentives for the local banking industry and domestic investors to finance renewable energy projects.

Action 6: Prioritise market entry for investors

One way to improve the investment climate would be to streamline the market entry process for new investors. Currently, company registration, obtaining licences and off-take agreements are complex procedures that require dealing with multiple government agencies (see Table 2). Market entry is fragmented; this increases transaction costs and ultimately raises the cost of doing business for investors.

They would benefit from a more streamlined procedure for obtaining power sector licences. Priority entry for new market entrants could be facilitated, and this action would reinforce other measures to prioritise renewable energy (see Actions 2–3 above).

Table 2. Current market entry for foreign investors

Task	Government body
Company registration and issuing investment licences	• Badan Koordinasi Penanaman Modal – Integrated Investment Agency
Issuing power sector licences	• Directorate General of New and Renewable Energy and Energy Conservation for Production of Bioenergy, Geothermal Steam • Directorate General of Electricity for Power Generation from Renewable Energy
Off-taker	• PT Perusahaan Listrik Negara – State-Owned Utility
Fiscal incentives	• Ministry of Finance

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This policy brief is a product of the **ASEAN Climate Change and Energy Project (ACCEPT)**.

ACCEPT is funded by the Norwegian Government under the Norwegian-ASEAN Regional Integration Programme (NARIP) and is jointly implemented by the ASEAN Centre for Energy (ACE) and the Norwegian Institute of International Affairs (NUPI). The project includes the active involvement of key ASEAN stakeholders, and helps enhance modelling, analytical and regional policy planning capacities within ASEAN.

ACE is an intergovernmental organisation within ASEAN structure that represents the 10 ASEAN Member States' (AMS) interests in the energy sector.

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