



# Accelerating Just Energy Transition in Asia



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## List of Contents

<a href="#">List of Contents</a>	03
<a href="#">List of Abbreviations</a>	05
<b>01</b> <a href="#">Background</a>	07
<b>02</b> <a href="#">The Importance of Accelerating Energy Transition in Asia</a>	11
<b>03</b> <a href="#">South Korea's Coal Transition Pathway: Policy Evolution and Strategic Implications</a>	17
3.1 <a href="#">South Korea's Policy Development</a>	19
<b>04</b> <a href="#">Towards A Fair and Equitable Energy Transition in the Philippines</a>	23
4.1 <a href="#">Just Transition in the Philippines' Energy Sector</a>	26
<b>05</b> <a href="#">Just Energy Transition Roadmap for Cambodia</a>	29
<b>06</b> <a href="#">Readiness in Transitioning to Renewable Energy: Lessons Learned from Indonesia</a>	33
6.1 <a href="#">Ensuring Just Energy Transition in Indonesia</a>	41

<b>07</b> <a href="#">The Role of ASEAN in Accelerating Just and Inclusive Energy Transition in Asia 24</a>	43
7.1 <a href="#">ASEAN Plan of Action for Energy Cooperation 2026-2030</a>	44
<b>08</b> <a href="#">Discussion</a>	45
8.1 <a href="#">Advancing a Just Energy Transition in Asia</a>	45
8.2 <a href="#">Financing Just Energy Transition in Asia</a>	47
8.3 <a href="#">Accelerating Just Energy Transition through International Cooperation</a>	49

## List of Abbreviations

4A	: Availability, Accessibility, Affordability, and Acceptability
AI	: Artificial Intelligence
AMS	: ASEAN Member States
APAEC	: ASEAN Plan of Action for Energy Cooperation
ASEAN	: Association of Southeast Asian Nations
BEP	: Basic Energy Plan
CFPP	: Coal-fired Power Plant
CSOs	: Civil Society Organizations
ETP	: Energy Transition Partnership
EV	: Electric Vehicle
FOLU	: Forestry and Other Land Use
GCF	: Green Climate Fund
GEDSI	: Gender Equality, Diversity, Disability, and Social Inclusion
GEF	: Global Environment Facility
GHG	: Greenhouse Gas
GST	: Global Stocktake
ILO	: International Labour Organization
IPPU	: Industrial Process and Product Use
IRID	: Indonesia Research Institute for Decarbonization
MtCO <sub>2</sub> e	: Metric Tonnes of Carbon Dioxide Equivalent

NDC	: Nationally Determined Contribution
NGOs	: Non-Governmental Organizations
NZE	: Net Zero Emission
PEP	: Philippines Energy Plan
PPCA	: Powering Past Coal Alliance
RUPTL	: <i>Rencana Usaha Penyediaan Tenaga Listrik</i>
SFOC	: Solutions for Our Climate
TAFF	: Transitioning Away from Fossil Fuels
UNEP	: United Nations Environment Programme
UNFCCC	: United National Framework Convention on Climate Change
UNOPS	: United Nations Office for Project Services
USD	: United States Dollar
WMO	: World Meteorological Organization

## 01. Background

In 2024, the World Meteorological Organization (WMO) [reported](#) that Asia is currently warming to nearly twice as fast as the global average. Worsening climate impacts, triggered by increasing greenhouse gas (GHG) concentration in the atmosphere with no doubt increases Asia's vulnerability. Asia is exposed to various physical climate risks, such as increased heat and humidity which affect livability, severe flooding and droughts, as well as typhoons. Rising temperature has intensified climate-related disasters, such as the tropical cyclone Yagi and Senyar which caused widespread loss and damage across Southeast Asia, particularly in the Philippines and Indonesia.

This state of Climate in Asia signals the need for ambitious mitigation measures—alongside enhancing adaptive capacity—to reduce the adverse climate impacts in the upcoming future. Deep, rapid, and sustained decarbonization is needed in Asia's energy sector, considering Asia's heavy reliance on fossil fuels. Currently, the growth of energy demand in Asia has been met by fossil fuels, particularly from coal. In 2025, an estimated [83% of the world's coal-fired power plant \(CFPP\) is located in Asia](#). With such kind of dependency, it is important to accelerate energy transition in Asia to reduce the continent's dependency on carbon-intensive energy systems.

However, recognizing the diverse capacity of countries, it is then important to understand the readiness of Asian countries to transition to renewable energy, given the risks and opportunities that the transition brings. Many Asian countries are grappling with balancing energy security and economic growth, while meeting their climate commitments. At the same time, Asia's transition to renewable energy is also growing driven largely by the massive solar and wind energy development in China and India.

Several countries have declared commitment to achieve net zero emission (NZE) individually—including through energy transition—such as Japan and South Korea by 2050, and China by 2060. Recently, South Korea joined the Powering Past Coal Alliance, where the government announced its plan to stop building new unabated coal power plants and phase out 40 coal power plants by 2040. Meanwhile, the Southeast Asian countries, guided by the ASEAN Plan of Action for Energy Cooperation (APAEC) and national NZE pledges, are also trying to reduce fossil fuel consumption.



Asia's heavy reliance towards fossil fuels has become a significant challenge for implementing energy transition, from technical and financial perspectives. Yet, there are also socio-economic risks and opportunities that come with such efforts with limited attention. These socio-economic risks from the transition must be well-managed for the transition to be accelerated with minimum social and economic impacts. Hence, it is important to understand which just energy transition pathways that fit with Asia's context. Recognizing the importance, Indonesia Research Institute for Decarbonization (IRID) in collaboration with Solutions for Our Climate (SFOC), and Parabukas, convened the first knowledge exchange seminar, which aims to understand the Asia's readiness in carrying out just energy transition and identify the region's readiness in phasing-in the renewable energy, not only from the technical sides, but also from the socio-economic aspects.



## 02. The Importance of Accelerating Energy Transition in Asia

Noting that fossil fuels account for roughly 75% of global GHG emissions, decarbonizing the energy sector becomes critical to ensure that the global mitigation pathway is on track to keep the 1.5oC target within reach. [The United Nations Environment Programme \(UNEP\) Emission Gap Report](#), however, states that fossil fuels transition issues remain structurally unaddressed, both in national plans and international processes.

### The Evolution of TAFF Language

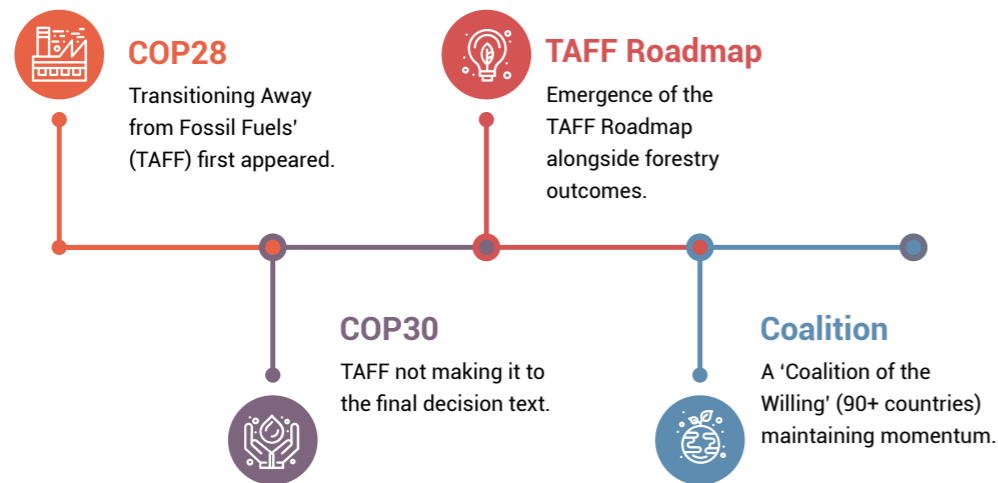


Figure 1. The Evolution of TAFF Language (SFOC, 2026)

Within the international climate processes, particularly under the United Nations Framework Convention on Climate Change (UNFCCC), reducing fossil fuels dependence in the energy system gained traction at the COP28, when the language on 'transitioning away from fossil fuels in a just, orderly, and equitable manner' lands on the [formal decision on the outcomes of the first Global Stocktake \(GST\)](#). Over the years, the discussions have shifted from recognition of the challenge to a more concrete implementation pathway. In 2025, at COP30, in Belém, the final decision did not mention any reference to transitioning away from fossil fuels.

However, a growing coalition of nearly 90 countries—including Colombia, the Netherlands, and Brazil—has expressed interest in maintaining the momentum of the fossil fuels transition agenda. Brazil, as the COP30 Presidency, announced that it will develop a Global Roadmap for Transitioning Away from Fossil Fuels in a Just, Equitable and Orderly Manner, alongside a Global Roadmap for Halting and Reversing Deforestation by 2030. In addition, Colombia also [announced](#) that it would co-host with the Netherlands the First Conference on Transition Away from Fossil Fuels on 28-29 April 2026.



For Asia, both the Roadmap and the Conference provide an opportunity not only to participate, but also to shape how the transition strategies can reflect regional priorities and development realities. Asia is a region with some of the world's largest economies as well as rapidly developing nations with growing young workers. Asia's energy system differs widely, from industrialized economies with established energy infrastructure to countries that are still expanding electricity access. This condition implies that Asian countries have different starting points in energy transition. Their pathways are varied, being shaped by each country's domestic priorities, economic structure, and development needs.

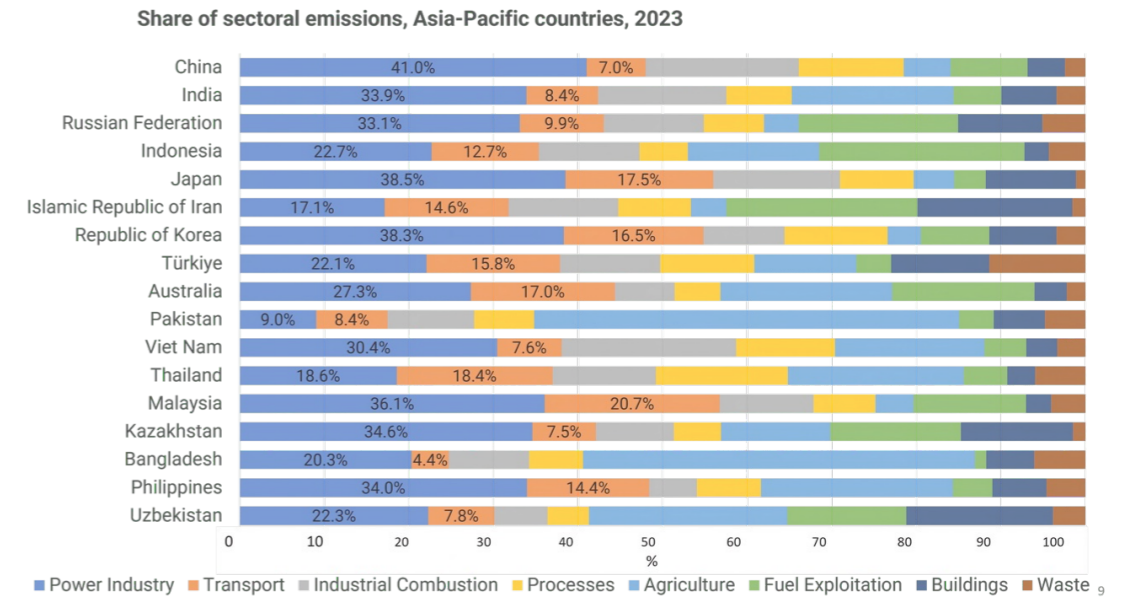


Figure 2. Share of Sectoral Emissions by Asia Pacific Countries in 2023 (UNESCAP, 2024)



On the other hand, Asia's role in global climate mitigation efforts is undeniably central, considering its significant share of global energy demand and GHG emissions. This implies that the policy decision made across Asian countries will have a major influence on the global mitigation efforts to prevent exceeding the 1.5oC threshold.

In Asia, fossil fuels play a dominant role in supporting economic growth and industrial development. Reducing fossil fuels dependence in Asia will require careful consideration of economic stability, jobs, and regional development. In this context, **a just energy transition means ensuring the shift towards renewable energy in the energy system supporting people and communities, while also maintaining economic resilience.** Just and equitable energy transition is not only climate imperative. For Asian countries, **just energy transition is a national competitiveness strategy, which is tied to energy security, resilience against global trade measures, and manufacturing enhancement to align with green economy.** Many governments and industry players across Asia have highlighted that a just and equitable energy transition can serve as a driver of economic growth.

**Accelerating energy transition in Asia then must be based on people-centered approach, meaning shifting from fossil fuels to renewable energy must prioritize the well-being of the people.** Such an approach can prompt confidence from the public towards the energy transition efforts. For Asia to lead the just energy transition, the governments must promote international cooperation, transparent policy-making, inclusive consultation processes, and provide practical support for the affected communities.

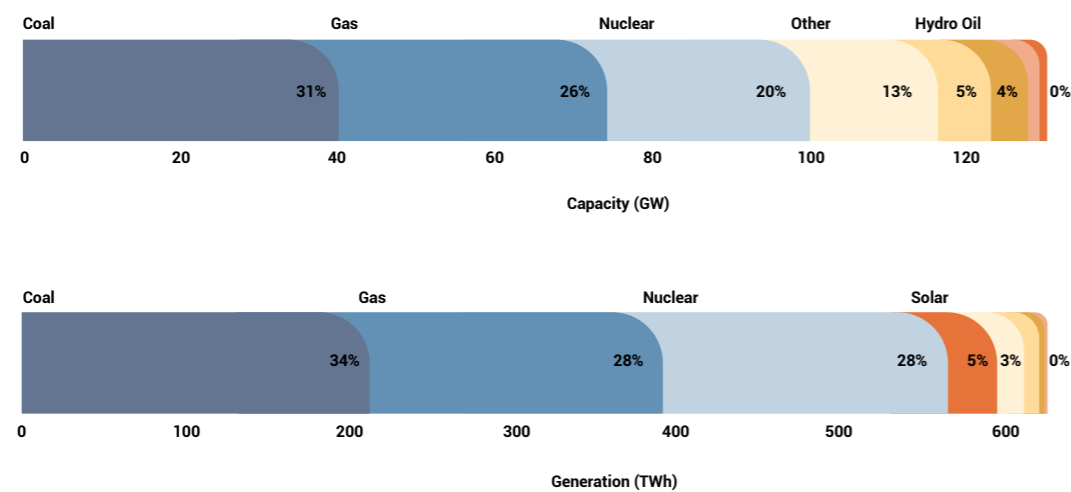


### 03. South Korea's Coal Transition Pathway: Policy Evolution and Strategic Implications

At the COP30, South Korea has officially committed to phasing out 40 of the 61 coal power plants by 2040 and establishing a concrete pathway for the remaining 21 plants by this year through public consultation. South Korea is also the second country in Asia—after Singapore—to join the Powering Past Coal Alliance (PPCA). Previously in 2021, South Korea, along with Japan and China, announced a moratorium on overseas coal financing. It was a big signal that South Korea is changing its energy policy direction.

South Korea is one of the major investors in coal, both domestically and abroad, particularly in Southeast Asia. At the domestic level, South Korea must navigate the complex considerations in terms of shifting away from coal. Around 31% or 39.1 GW of South Korea's total power capacity comes from coal. The country also operates the seventh largest coal fleet in the world. Although the coal share has decreased from 42.5% to 30.5% in 2024, several new coal power plant units have just begun its operation in 2020 (Table 1).

South Korea's 2022 power mix



Source: Ember, S&P Platts

Figure 3. South Korea's 2022 Power Mix (SFOC, 2026)

Table 1. Newly-operated CFPPs in South Korea since 2020 (SFOC, 2026)

Plant name	Unit no.	Commercial Operation Start Date	Retirement	Total capacity (MW)
Goseong Green Power Plant	1	14-May-21	2050	1040
	2	Oct-21	2050	1040
Samcheok Blue Power Station	1	17-May-24	2050	1050
	2	01-Jan-25	2050	1050
Shin Seocheon Power Station	1	30-Jun-21	2050	1018
Gangneung Anin Power Station	1	31-Oct-22	2050	1040
	2	May-23	2050	1040
Sum of Total Capacity				7278



### 3.1 South Korea's Policy Development

The discussion of coal phase out at the national level in South Korea began with subnational leadership, particularly by the Chungnam Province, located in South Korea's west central region. The province hosts 29 CFPPs or nearly half of the country's total. Chungnam Province brought up the national conversation on coal phase out in 2016, backed up by numerous scientific research that revealed the harming impacts of the region's coal power plants towards local air pollution and public health. With the support from experts, think tanks, and Civil Society Organizations (CSOs), Chungnam Province joined the PPCA in 2018 as the first Asian subnational member. Subsequently, the province declared a climate emergency in 2019, committing to carbon neutrality by 2045, which is five years ahead of the national government. Despite three changes in governors and shifting in political parties, Chungnam Province has maintained consistent leadership.

The leadership of the Chungnam Province has led seven more provinces—Seoul, Gyeonggi-do, Incheon, Jeju, Daegu, Jeollanamdo, Gangwon—to join the PPCA, representing 80% of the South Korea's coal capacity. Their collective voice has urged the national government to join the PPCA and take more ambitious climate action.

Furthermore, the national government has Basic Energy Plan (BEP) that outlines South Korea's 15-year energy plans. BEP is updated every two years to ensure balance between energy security and climate targets. The 12th BEP for 2026-2040 will be published at the end of 2026. The 12th BEP is expected to address the existing policy gaps and rising electricity demand from Artificial Intelligence (AI) and data centers, by prioritizing renewable energy provision and grid integration, rather than extending fossil fuel dependence through transitional technology. The previous 11th BEP, which was released in February 2025, expands plans for hydrogen, ammonia co-firing, coal and gas plants. However, the viability of these solutions is increasingly uncertain. In October 2025, the Minister of Climate, Energy, and Environment of South Korea cancelled clean hydrogen portfolio standard subsidy scheme that was intended to support such projects. The Minister cited that the scheme was inconsistent with the government's 2040 coal phase out target.



The 12<sup>th</sup> Basic Energy Plan (BEP) – Korea's 15yr Roadmap (2026-2040)



Former BEP plans

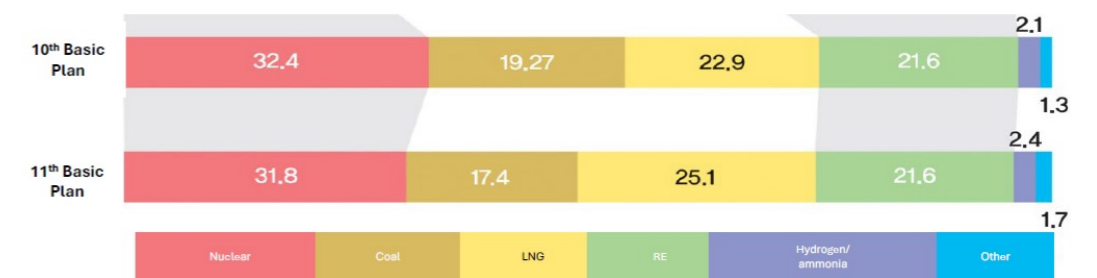
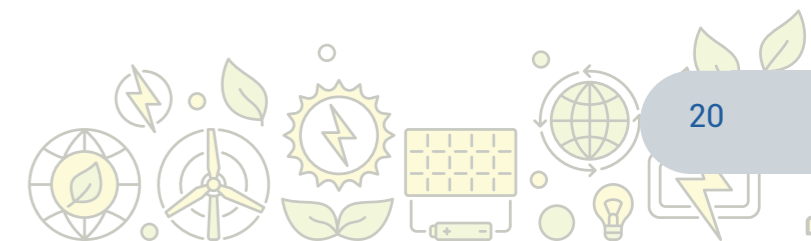


Figure 4. South Korea's Basic Energy Plan (SFOC, 2026)



South Korea's commitment to just energy transition can also be found in its [Nationally Determined Contribution \(NDC\)](#). The country has announced its 2035 NDC target, which targeted 53%-61% of GHG emissions reduction compared to the 2018 level. However, South Korea has also identified that there are at least **three significant barriers to meeting the NDC target**. First, **the financial aspect**, where the country faces a massive fiscal imbalance. The financing for fossil fuels currently sits at USD 130 billion, with 61% of which comes from the public sector. Meanwhile, financing for renewable energy only receives USD 26 billion or only one fifth of the fossil fuels allocation. In this regard, **public financial institutions must play a bigger role in derisking clean energy investments**. Second, institutionally, **complex permitting processes and a rigid grid struggle with power from variable renewable energy have been hindering the efforts of phasing in renewable energy**. Third, South Korea is experiencing rising electricity demand, driven by the rapid development of AI and data centers. The rising electricity demand can hamper South Korea's mitigation targets if its electricity supply is still largely sourced from fossil fuels.

**South Korea's experience shows that a just transition means managing a broader structural shift from coal toward diversified renewable energy system, while maintaining energy security, economic stability, and social acceptance.** It also shows that policy development to reduce fossil fuel dependence can be enabled by international commitments, financial policy shifts, and evolving domestic consultations.



## 04. Towards A Fair and Equitable Energy Transition in the Philippines

Fossil fuels accounts more than 60% of the Philippines' total primary energy supply in 2024. The country is also highly dependent on energy imports, which cover 55% of its total primary energy supply. The final energy consumption is mostly met by oil. Being dependent on energy imports, the country's energy system is very vulnerable to external shocks, especially geopolitical conflicts that affect global energy supply. In the Philippines, transport and household sectors are the main users of energy. Looking ahead, the industry sector is expected to consume a higher share of energy due to higher growing demand for industrial products, particularly building materials, such as cement, iron, and steel.

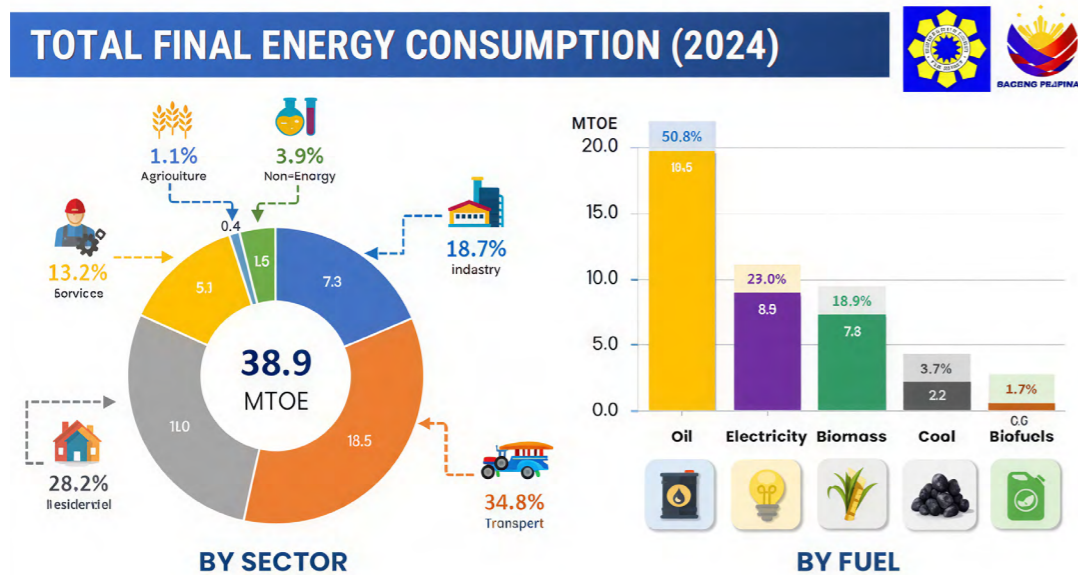


Figure 5. Total Final Energy Consumption of the Philippines (2024) (Philippines' Department of Energy, 2026)

The Philippines remains rely on coal in its power sector. In 2024, coal contributed around 62.5% of the national power generation. The share went down to 56% in 2025. Meanwhile, renewable energy comprises 32% (9.520 MW) of the installed capacity and 22.2% (28.193 GWh) of power generation in the country in 2024.

Looking ahead, as stated in the Philippines Energy Plan (PEP) 2023-2050, the government aims to achieve:

- Energy efficiency and conservation resulting in 10% of energy savings on oil products and electricity by 2040 up to 2050;
- 35% of renewable energy in the power generation mix by 2030, 50% by 2040, and more than 50% by 2050;
- 50% of electric vehicle (EV) penetration rate in road transport by 2040;
- Exploration of alternative technologies, such as nuclear, hydrogen, and ammonia;
- Adoption of advanced and smart grid technologies; and
- Resilient and climate-proof energy infrastructure.

The Philippines Government has already identified enablers for advancing energy transition. First, **balancing energy transition with development agenda**. The government aims to boost economic growth while simultaneously achieving energy transition objectives. Second, enhancing energy innovation which refers to improving electrification strategies through **the development of advanced and emerging technologies**. Third, **a smart and green grid plan** is intended to manage the additional renewable energy capacity in the power generation system until 2050. Fourth, **regulation and political commitment must be translated into effective policy implementation**. In this context, the government must demonstrate the will and commitment to further develop renewable energy and other clean energy technologies. Fifth, **digital and infrastructure readiness** aim to achieve support for smart grid system operation. This aspect is in line with the Philippines vision of achieving full household electrification by 2028 through grid expansion, microgrid, and renewable energy hybrid system. Sixth, **a conducive finance and investment environment** that is critical for strengthening investor confidence while safeguarding public benefits. Seventh, **education and human capital**, where the government intends to empower the workers by developing new programs that support their participation in the energy transition plans, such as certification, vocational training, and upskilling program for the existing workforce.



#### 4.1 Just Transition in the Philippines' Energy Sector

There have been numbers of efforts to ensure that the energy transition in the Philippines is implemented in a fair and equitable ways. In time of the discussion, the Philippines Government through the leadership of the Department of Environment and Natural Resources is developing its national Just Transition Framework that provides a foundation for people-centric climate action. The framework is grounded on nine principles, namely:

- ➔ A people-centered and rights-based process;
- ➔ Socio-economic resilience and transformation;
- ➔ A whole-of-government approach;
- ➔ A whole-of-economy and whole-of-society approach;
- ➔ Climate ambition;
- ➔ Strong governance and institutional mechanisms;
- ➔ Intergenerational equity and gender equality;
- ➔ Ecological integrity and environmental rights; and
- ➔ Collective action and shared responsibility.

#### Purpose

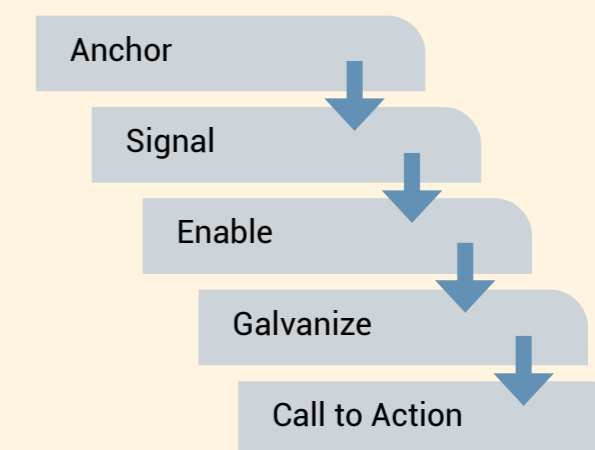
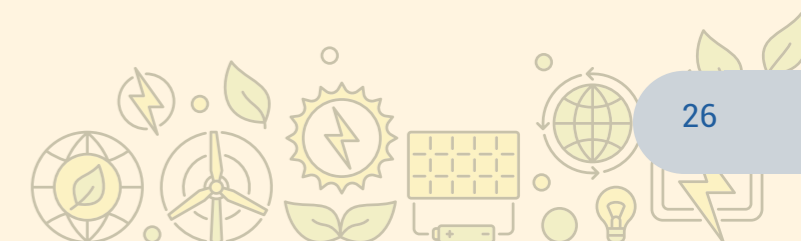


Figure 6. The Purpose of the Philippines' Just Transition Framework (Philippines' Department of Energy, 2026)



The Just Transition Framework is expected to provide a structured foundation for advancing a just transition in the Philippines. First, it serves as an **anchor** by unpacking the imperative of just transition. Secondly, it is also a **signal** regarding the overall direction of just transition by defining vision and principles. Third, this framework aims to **enable** the implementation of just transition by identifying key policy interventions. Fourth, it seeks to **galvanize** stakeholders by mapping the main tenets of just transition achievement. Lastly, **call to action**, which refers to mobilizing all relevant stakeholders to collectively contribute toward a just transition.

In addition to the framework development, the Philippines Government, with the support from the International Labour Organization (ILO), has kicked off the first tripartite plus social dialogue on just energy transition in December 2025. The event marks a significant step towards building a **common understanding of just and inclusive energy transition in the Philippines' context**.

In addition, a study on [just transition pathways for the coal mining sector in the Philippines](#) is underway, with the support from Energy Transition Partnership (ETP)-United Nations Office for Project Services (UNOPS). The study seeks to understand potential macroeconomic implications, workforce risks, as well as social impacts of a domestic coal mining phase-out. It will also include the possible transition timeline and strategies, including by exploring livelihood alternatives for the affected community and repurposing options of the coal mining site. Furthermore, as the country has limited fiscal space to close the coal mines—or fund the energy transition in general—this study also seeks on ways to address the financial issues, looking at the potential loss of local government revenues from the coal industry and exploring other sources of local income.



## 05. Just Energy Transition Roadmap for Cambodia

Cambodia ratified the Convention and joined the UNFCCC in 1996. In 2017, Cambodia joined the Paris Agreement and introduced a national law on Paris Agreement ratification. Before ratifying the Paris Agreement, Cambodia has submitted its first NDC which is known as NDC 1.0. The country updated the NDC and submitted it in 2020, named the NDC as NDC 2.0. On August 8th in 2025, Cambodia has submitted its latest NDC ([NDC 3.0](#)) to the UNFCCC Secretariat.

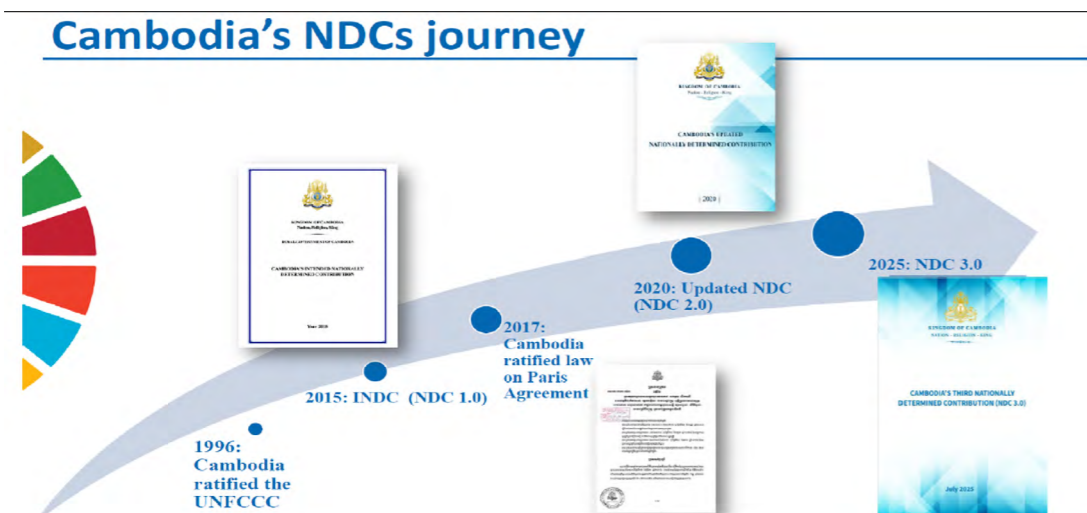


Figure 7. Cambodia's NDCs Journey (NDC Partnership-Cambodia, 2026)

Cambodia's NDC 3.0 outlines 163 actions, including 49 mitigation measures, 74 adaptation measures, and 40 enabling<sup>1</sup> aspects. Cambodia's mitigation actions comprises their commitment to reducing GHG emissions in the energy sector, industrial process and product use (IPPU), agriculture, forestry and other land use (FOLU), and waste sectors.

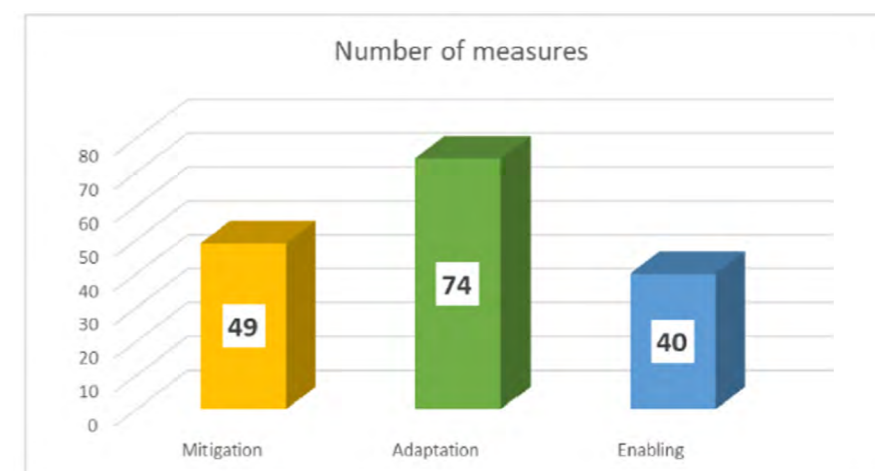
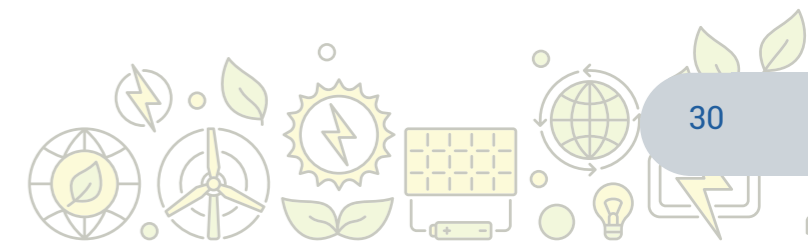


Figure 8. Number of Measures in Cambodia's NDC 3.0 (NDC Partnership-Cambodia, 2026)

NDC is one of the existing policies of Cambodia that highlights its energy transition efforts. The government aims to increase renewable energy to 72% unconditionally and 80% conditionally by 2035. In addition, Cambodia aims to adopt grid modernization technologies, phase out coal, promote energy efficiency, adopt clean cooking and passive cooling solutions. The NDC also outlines decarbonization efforts in the energy subsectors, particularly transport, manufacture, and construction. In the transport subsector, Cambodia intends to expand the electric vehicle up to 35% for motorbikes and 5% for car by 2035, introduce fuel efficiency and emission standards, improve public transport up to 15% modal share<sup>2</sup>, shift freight to rail and waterways, and promote green civil aviation. Meanwhile, in manufacturing and construction subsectors, decarbonization measures will be implemented through energy efficiency improvement, sustainable energy use, and low-carbon technology adoption in brick and cement sectors.

<sup>1</sup> to support the implementation of mitigation and adaptation actions.

<sup>2</sup> The percentage of travelers using a particular type of transportation—such as private cars, public transit, walking, or cycling—out of the total trips made.



To review and discuss the ten-year energy transition strategies and policies, Cambodia has organized a regional consultation workshop in August 2025, joined by various stakeholders such as Non-Governmental Organizations (NGOs), civil society, as well as local and national government. The policy review was particularly focused on the feasibility of the government's plan to increase renewable energy share from solar power, solar farm, and wind power. By 2025, the renewable energy mix in Cambodia's energy system has reached around 60% and is expected to continue increasing to 80% by 2035, as stated in the NDC 3.0.

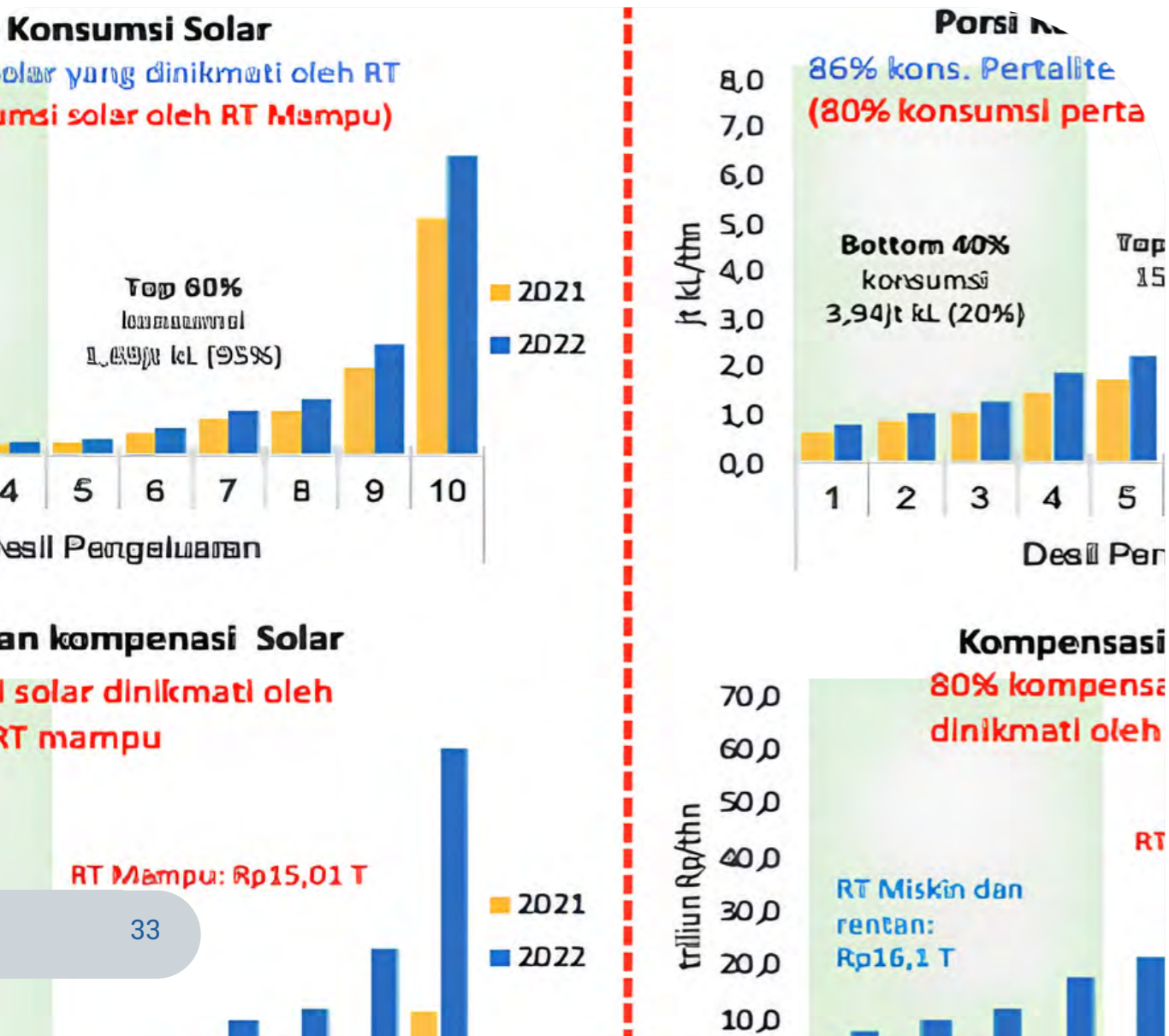
At the international level, the Government of Cambodia has been engaging in the [Fossil Fuel Treaty](#) processes. In October 2025, Cambodia joined the Senior Official Meeting of Fossil Fuel Treaty as an observer, which later at the COP30, Cambodia expressed strong support and interest in joining the Fossil Fuel Treaty. Cambodia's engagement in the Treaty activities demonstrate the country's commitment to accelerating its just energy transition effort, including by **preparing its own national roadmap for a just energy transition**. However, **the country still needs to develop an established policy framework and implementation mechanism of transitioning away from fossil fuels**. Since March 2026, the Fossil Fuels Treaty Secretariat has been supporting Cambodia in developing a technical paper and roadmap for just energy transition toward fossil fuel phase-out.



## 06. Readiness in Transitioning to Renewable Energy: Lessons Learned from Indonesia

For Indonesia, energy transition is interlinked with energy security and national resilience. Indonesia's energy policy is guided by the 4A principles: availability, accessibility, affordability, and acceptability. These principles ensure that renewable energy expansion efforts will not undermine the need to ensure accessible and affordable energy for more than 280 million people across Indonesia.

The Government of Indonesia has committed to GHG emissions reduction in the energy sector at around 358 MtCO<sub>2</sub>e by 2030, as stated in its [Enhanced NDC](#). This target will be achieved through, among others, renewable energy expansion, energy efficiency improvement, cleaner power generation, and low carbon fuels. Moreover, the current government aims to achieve self-sufficiency in key sectors, including energy.



### 4A PRINCIPLES OF ENERGY SECURITY/RESILIENT



**AVAILABILITY**  
(6,76)



**AFFORDABILITY**  
(6,92)



**ACCESSIBILITY**  
(6,70)



**ACCEPTABILITY**  
(6,55)

N<2	2≤N<4	4≤N<6	6≤N<8	8≤N≤10
VERY VULNERABLE	VULNERABLE	LESS RESILIENT	RESILIENT	VERY RESILIENT

Progress of Indonesia (2024):  
**6,74**

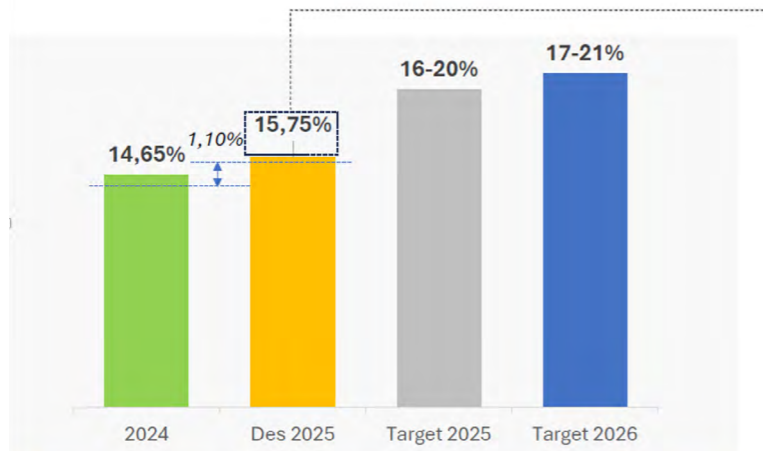
Figure 9. Indonesia' Energy Security Index According to National Energy Council (Indonesia's Ministry of Energy and Mineral Resources, 2026)

The Government of Indonesia views energy transition not as a trade-off, but it's a means to achieve three objectives simultaneously: emission reduction, energy security, and economic growth. On energy transition, Indonesia has made a steady progress. In 2025, Indonesia's renewable energy accounted for about 15.7% of the national energy mix, which increased from 14.65% in 2024. In terms of installed capacity, renewable energy contributes more than 15 GW to the national electricity system, dominated by hydropower, geothermal, and bioenergy. Looking ahead, renewable energy is expected to play a much larger role in the country's electricity system.





**CURRENT STATE OF NRE IN NATIONAL ENERGY MIX**  
(December 2025)



The new & renewable energy mix in 2025 has reached **15.75%** (8.29 from electricity & 7.46% from non-electricity)  
The additional in the 2025 compared to last year is 1.10%.

**Contribution from New & Renewable Energy Power Plants to the national energy mix**

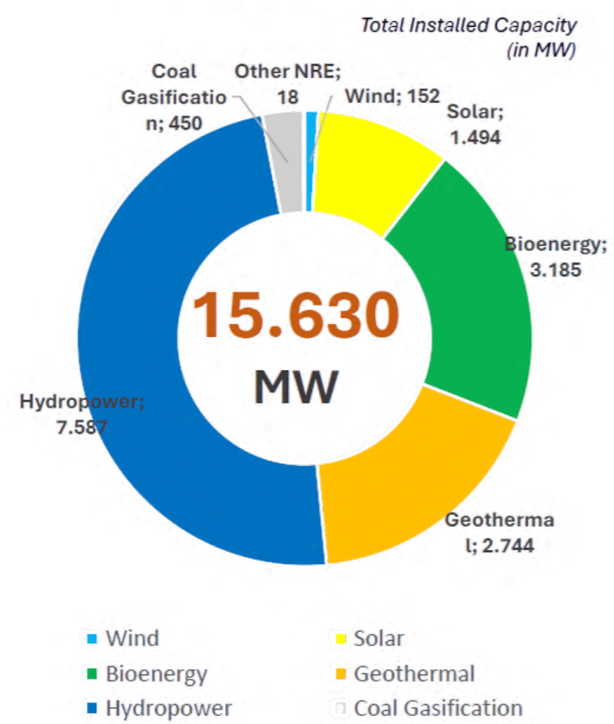


Figure 10. Indonesia's Renewable Energy Share in National Energy Mix (Indonesia's Ministry of Energy and Mineral Resources, 2026)

The Electricity Supply Business Plan (Rencana Usaha Penyediaan Tenaga Listrik/ RUPTL) 2025-2034 outlines that the National Electricity Company will add more than 42 GW of additional renewable power capacity, along with more than 10 GW of energy storage development. This plan is expected to mobilize significant investment, generate green jobs, and deliver substantial GHG emissions reduction. The plan also marks a very significant transformation of Indonesia's power system, where renewable energy becomes the pillar of Indonesia's future electricity system.

However, scaling renewable energy requires a strong system foundation, particularly the grid system. Transmission grid must be expanded to connect renewable resources with demand, meaning that the electricity system must become more flexible, especially in the context of integrating variable renewable energy. To enable just energy transition acceleration, Indonesia also needs to establish a robust enabling condition—such as clear renewable energy policy, incentives provision for renewable energy development, and de-risking mechanism—that allows investor to finance its renewable energy projects.



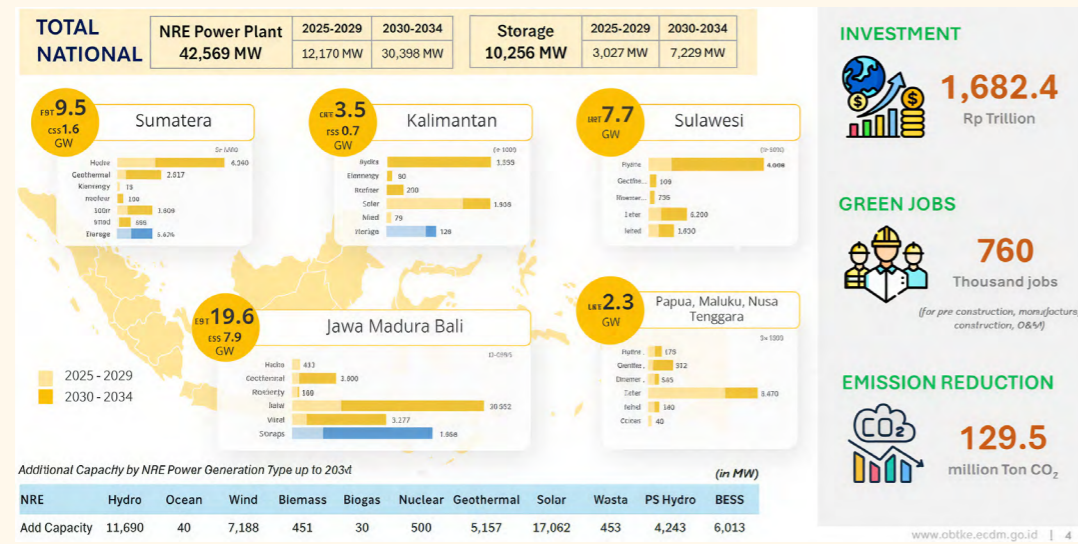


Figure 11. New and Renewable Energy Power Plant Investment Opportunities in RUPTL (Indonesia's Ministry of Energy and Mineral Resources, 2026)

The Government of Indonesia has been strengthening its policy framework to accelerate just energy transition in the country. In 2025, the government has introduced [the Ministry of Energy and Mineral Resources Regulation No. 10/2025 on Roadmap for Energy Transition in the Electricity Sector](#). The transition measures included in the roadmap are accelerating renewable energy developments, strengthening transmission infrastructure and smart grid development, integrating energy storage, and gradually reducing reliance on fossil fuels-based power generation. There are also pathways being explored for coal transitions, such as the possibility of early retirement of certain CFPPs.



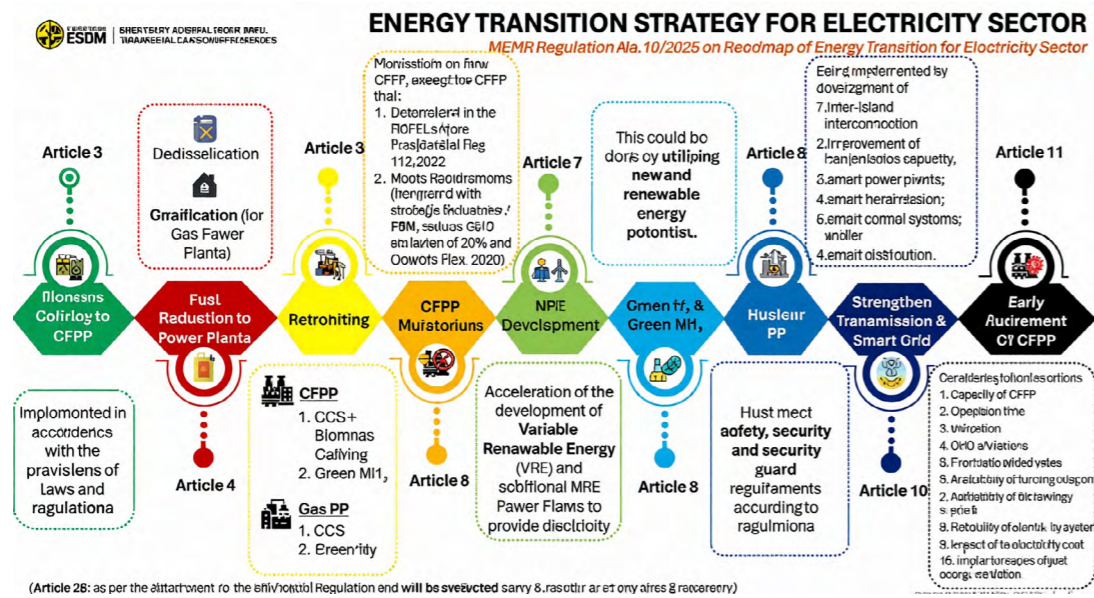


Figure 12. Indonesia's Energy Transition Roadmap in the Electricity Sector (Indonesia's Ministry of Energy and Mineral Resources, 2026)

There are already ongoing initiatives to support Indonesia's just energy transition, such as the de-dieselization program which aims to reduce diesel power generations and replace them with renewable energy. The program is particularly relevant for Indonesia as many small islands still rely on diesel generators to supply electricity. Although initially diesel power generation is the practical solution to electrify isolated regions, yet overtime it creates significant challenges, such as high operating costs and dependence on fuel transportation. **Replacing diesel power generation with renewable energy presents an important opportunity to accelerate energy transition in the country, while improving energy resilience in remote areas.**

Another initiative to complement the de-dieselization program is 100 GW solar PV program. The government intends to build 100 GW solar PV in 80.000 villages by 2028. Since many isolated grids in Indonesia still rely on generators, combining solar PV with battery storage or hybrid system can gradually reduce diesel consumption. Moreover, the program also aims to support decarbonization in remote island areas.

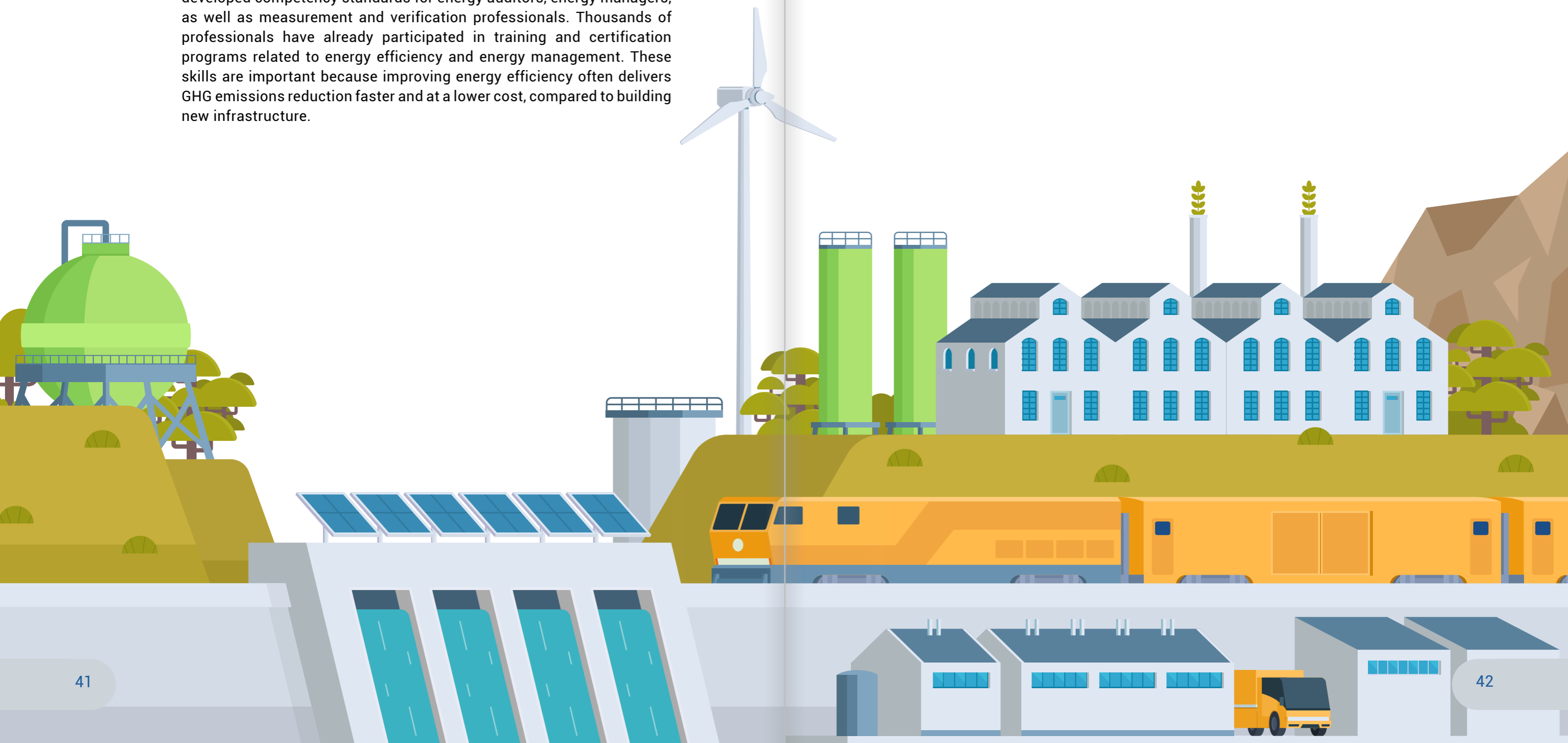


## 6.1 Ensuring Just Energy Transition in Indonesia

The success of energy transition in Indonesia does not only depend on the infrastructure, but it also depends on its people. The Government of Indonesia, therefore, has introduced several initiatives aimed at ensuring the energy transition to be implemented in an inclusive way. First, *Energi Patriot* program, which sends young graduates to remote villages to support renewable energy development and community electrification. In 2024, this program focused on providing assistance for solar, geothermal, and micro-hydro development. To date, the program has benefited 98 remote villages.

Furthermore, to support workers capacity building, Indonesia has developed competency standards for energy auditors, energy managers, as well as measurement and verification professionals. Thousands of professionals have already participated in training and certification programs related to energy efficiency and energy management. These skills are important because improving energy efficiency often delivers GHG emissions reduction faster and at a lower cost, compared to building new infrastructure.

There are at least three key lessons from Indonesia's energy transition journey. First, **renewable energy expansion must be supported by system readiness**, particularly infrastructure, grid flexibility, and storage. Second, there must be **a clear policy direction, and long-term planning** is crucial to mobilizing investment and maintaining market confidence. Third, **the transition must be people-centered**, ensuring that community benefits through skills, jobs, and economic opportunities.



## 07. The Role of ASEAN in Accelerating Just and Inclusive Energy Transition in Asia

[The Philippines officially assumed the ASEAN Chairship for 2026](#), taking over from Malaysia. Its chairship is guided by the theme of 'Navigating Our Future, Together'. The theme reflects ASEAN's stand in unity, diversity, innovation, and people-centered development. In the energy sector, the vision is translated into 'Shaping the Energy Future Together through Partnership, Innovation, and Resilience'. This highlights the importance of strong partnership, continuous innovation, and resilient systems that meet the uncertainty of the changing world. Under the Philippines' chairship, energy cooperation within ASEAN rests on four pillars: 1) securing people through inclusive and reliable energy; 2) powering jobs and economic growth through energy investments that creates opportunities for employment and skills development; 3) fostering innovation through emerging technologies and digitalization, amplified by sharing knowledge among ASEAN members regarding the risks of accelerating renewable energy deployment and clean energy solutions; 4) building resilience in the energy system from disaster risks by strengthening regional cooperation.




### 7.1 ASEAN Plan of Action for Energy Cooperation (APAEC) 2026-2030

APAEC serves as the ASEAN five-year strategic blueprint to advance regional energy cooperation. In its third phase (2026-2030), [APAEC](#) brings the central theme of 'Advancing Regional Cooperation in Ensuring Energy Security and Accelerating Decarbonization of a Just and Inclusive Energy Transition'. Under the APAEC phase III, ASEAN Member States (AMS) have set three aspirational targets by 2030: 1) 30% of renewable energy share in total primary energy supply; 2) 45% renewable energy share in installed power capacity; 3) 40% of energy intensity reduction, compared to 2005 baseline.

Emphasizing just and inclusive energy transition, APAEC phase III reflects ASEAN's commitment to energy transition agenda that is fair, affordable, secure, and inclusive for all AMS. For ASEAN, inclusivity means maintaining reliable and affordable energy access, which supports vulnerable communities, enables equitable economic development, and recognizes the differences of national circumstances.

## 08. Discussion

There are several issues that were discussed in the session, such as:

-  Advancing a just energy transition in Asia;
-  Financing just energy transition in Asia; and
-  Accelerating just energy transition through international cooperation.

### 8.1 Advancing a Just Energy Transition in Asia

To advance a just energy transition in the Philippines, the government recognizes the important role of people-centric approach by ensuring broader public participation and creating more inclusive spaces for consultation and dialogue, among others. This approach allows more active stakeholders' participation in the nation's energy transition agenda by expressing their needs and concerns. In addition, gender equality, diversity, disability, and social inclusion (GEDSI) principles have always been incorporated in the Philippines' just energy transition plan. The country already has programs that promote greater participation of women and girls in energy transition, such as a 'Girls in Science' program. The program encourages women and girls to take science-based courses in elementary school, high school, and college, so they can partake in energy transition agenda, which is generally viewed as highly technical.

In South Korea, one of the most significant socio-economic risks associated with the coal transition concerns workers in coal power plants. Unlike some other countries, coal mining is no longer a major issue as the sector has largely disappeared. Reskilling efforts emerged as one of the challenges, as many workers may not easily transition into alternative sectors, such as renewable energy. At present, various government agencies and subnational authorities in the regions that are affected by CFPP closures have been exploring solutions to support workers through retraining programs and employment assistance. The initiatives, especially in Chungnam Province, have so far been largely driven by local governments in collaboration with power plant operators and surrounding municipalities. At the national level, a draft bill on dedicated just transition funds is being assessed at the National Assembly. There is a proposal of greater involvement from the national government in just transition initiatives through expanded financial support for affected workers and regions.

Just transition in energy transition must also cover ecological consideration in addition to the people-centric approach. For example, the Philippines is developing offshore wind projects and planning to build its supporting ports. The government needs to assess the potential impacts of this project development towards the fishermen and aquatic resources. In this context, the Philippines' Department of Energy has engaged with the Ministry of Environment and Natural Resources to expand the risks assessment of the offshore wind project development, including ecology and biodiversity considerations.

## 8.2 Financing Just Energy Transition in Asia

Financing remains a challenge in accelerating just energy transition across Asia. In Indonesia's case, although the Just Energy Transition Partnership (JETP) is present in the country, the funding mechanism only offers very limited grants, relying mostly on concessional and commercial loans. Besides funding availability, mobilizing the required finance is also a challenge. In practice, concessional financing is generally directed toward government or state-owned enterprises. As a result, many private companies face limitations in securing affordable financing for energy transition projects. To address this issue, institutional transition within the Indonesia JETP has been undertaken, where the previous Secretariat is being replaced by a dedicated delivery unit. The delivery unit is expected to mobilize more grants to enable project readiness to increase the bankability of renewable energy and energy efficiency projects.

In South Korea, most public financial flows remain concentrated in the fossil fuel sector, while finance for renewable energy remains insufficient. In response to this imbalance, the national government has decided to issue sovereign green bonds aimed at increasing public investment in renewable energy. There is a growing recognition of the importance of blended finance and other innovative financial mechanisms to encourage greater participation of the private sector. These mechanisms are critical for reducing investment risks and strengthening market confidence in the renewable energy sector. In this context, public finance plays an essential catalytic role to encourage private investors to scale up their involvement in energy transition projects.

There are numbers of existing funding opportunities, such as the Global Environment Facility (GEF) and the Green Climate Fund (GCF), that can support just energy transition in developing countries. While developed countries have pledged financial support to developing countries, the scale of need is much larger. To narrow the gap, carbon credits are viewed as a potential opportunity for Asia to access additional sources of climate finance. However, accessing these financing opportunities remains a significant challenge for many developing countries in Asia. Therefore, strengthening the capacity of domestic financial institutions, such as local banks, is required to enable their participation in accessing international funding opportunities and in international carbon market mechanisms.



### 8.3 Accelerating Just Energy Transition through International Cooperation

**Aligning the Roadmap for Transitioning Away from Fossil Fuels and the Roadmap for Halting and Reversing Deforestation and Forest Degradation by 2030 is seen to be important, especially when the energy transition measures include biomass.** In the case of Indonesia, where biomass becomes one of its energy transition options, the development of biomass must be carefully managed to avoid deforestation risks. If biomass is sourced from unsustainable land use or forest clearing, it can undermine both climate objective and biodiversity protection. Indonesia is promoting a sustainable biomass sourcing, such as utilizing agricultural residues and growing energy crops on degraded or non-forest landscapes.

**In ASEAN, there is growing recognition of the importance of integrating energy resilience across all energy sub-sector networks.** This was reflected in one of the Senior Official Meetings on Energy, where AMS agreed in principle that resilience should be embedded throughout ASEAN energy policies. As the 2026 ASEAN Chair, **The Philippines has introduced its initial energy resilience policy framework in 2018 and updated the policy in 2022.** Under this policy, submitting a Resiliency Compliance Plan to the government before developing energy infrastructure is required. The government has developed a scorecard system to assess these plans based on several key pillars. These include operational protocols, system preparedness, stockpiling measures, restoration and recovery capacity, cybersecurity resilience, among others. Through this assessment mechanism, the authorities are able to identify both the strengths and weaknesses of each plan. Energy operators are also expected to improve their plans for addressing both natural disasters and human-induced disruptions.









Indonesia Research Institute for Decarbonisation (IRID) is a think tank in Indonesia that focuses on decarbonisation efforts and promotes the realisation of a climate-resilient and low-carbon society in Indonesia. Through legal and policy analysis, policy advocacy and capacity building, IRID establishes strategic partnerships with various stakeholders and experts, including the government, the private sector, academics, the media and civil society groups, to seek relevant and feasible recommendations and solutions to support effective policy-making.

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