

2021 – 2022 Report on:

# Narrative Trends in Energy Transition

Insights for State Actors and Energy Consumers in Indonesia

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**CASE**  
for Southeast Asia

## Imprint

# Narrative Trends of Energy Transition: Insights for State Actors and Energy Consumers in Indonesia

## In the context of CASE

The regional programme, “Clean, Affordable and Secure Energy for Southeast Asia” (CASE), is jointly implemented by *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) and the Institute for Essential Services Reform (IESR) in Indonesia with support from Agora Energiewende and NewClimate Institute.

CASE Indonesia is anchored to the Ministry of National Development Planning/National Development Planning Agency (Bappenas) – Directorate of Electricity, Telecommunications, and Informatics, and jointly implemented by GIZ and IESR.

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**The narrative trends report by CASE Indonesia aims to highlight the abundance of online and media narratives from different stakeholders.** The report utilizes a comprehensive methodology, involving the analysis of public statements, measuring media conversations, and assessing relevant stakeholders.

A narrative trend, in this context, refers to a dominant pattern in storytelling style, themes, or subjects across various media or communication channels during a specific time and cultural context. It involves identifying recurring elements, motifs, or messages in the fragmentation of the storyline within that period. In this report, **CASE specifically analyses narrative trends related to the energy transition in Indonesia between 2020 and 2022 and presents insights for the energy and non-energy stakeholders to own their narratives collectively for clean, affordable, and secure energy.**

List of publicly accessible documents:

**CASE Baseline  
Narrative Report**

**Indonesia's Power Sector  
News Coverage Insights  
2022 - 2020**

**CASE Consortium Public  
Dialogue and discussion**

**CASE Studies**

**CSOs Surveys  
on Clean Energy**

**GOIs Press Releases**

Analyzing narrative trends is vital because they offer a window into public sentiment, policy direction, and societal attitudes. In the context of the energy transition in Indonesia from 2020 to 2022, the report by CASE Indonesia delves into online and media narratives from diverse stakeholders. By dissecting these narratives using a comprehensive methodology, the report uncovers prevailing themes, concerns, and hopes during this transformative period.

These narrative trends, which are recurring patterns in storytelling across communication channels, provide invaluable insights. They help stakeholders understand public engagement, address misinformation, and tailor communication strategies effectively. By aligning their narratives, both energy and non-energy stakeholders can collectively champion a clean, affordable, and secure energy future.

**In essence, this analysis informs decision-making, empowers businesses, and promotes collaboration. By shaping narratives, the report aids Indonesia's energy transition by influencing public behavior and fostering a shared understanding among stakeholders.**

List of publicly accessible documents:

[CASE Baseline Narrative Report](#)

[CASE Baseline Narrative Report](#)

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[CASE Studies](#)

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Indonesia's energy landscape is witnessing significant trends that are shaping the path towards collectively reaching Net-Zero Emissions (NZE) by 2060. However **as highlighted within this report**, Trend 2 emphasizes the necessity for even greater strides and efforts to accelerate progress towards this ambitious goal. As the transition gains traction, Trend 3 showcases a notable increase in news reports focused on energy transition developments, reflecting the growing importance and public awareness of this critical endeavor.

Amidst these trends, Trend 4 highlights the diverse key messages from stakeholders, each advocating for distinct approaches and strategies to navigate the transition. This multifaceted discourse further enriches the national dialogue on the path forward. Complementing these efforts, Trend 5 sheds light on emerging instruments and technologies, providing innovative solutions to bolster the energy transition's effectiveness and efficiency.

Ultimately, Indonesia's road to a greener future is shaped by Trend 6, encompassing all these dynamics and propelling the nation towards a more sustainable and environmentally-conscious energy landscape.

## Inside this report:

### **Trend 1:**

Collectively reaching NZE 2060

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### **Trend 2:**

Bigger strides needed

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### **Trend 3:**

Increased news report  
on energy transition

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### **Trend 4:**

Stakeholder key messages

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### **Trend 5:**

Emerging instruments and  
technologies

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### **Trend 6:**

Road to a greener Indonesia

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TREND 1:

## **Seizing the momentum of Indonesia Emas 2045 – Collectively reaching NZE 2060**

Indonesia's pledge to achieve Net Zero Emissions by 2060 or earlier, [announced during COP26](#), has garnered broad support from government bodies, state-owned enterprises, and private businesses. This ambitious goal was galvanized by the G20 Summit in Bali in 2022, where stakeholders demonstrated a strong commitment to advancing holistic, clean, affordable, and secure energy initiatives. 2022 was also the year that Indonesia entered into a discussion on coal-phase out, which culminated in the Just Energy Transition Partnership signed at G20.

The cascade of high-level political commitments in Indonesia has led to a clearer path for achieving Net-Zero Emissions, supported by green portfolios and international investment. By prioritizing sustainability and embracing innovative solutions, Indonesian leaders are increasingly articulating their willingness to favour long-term sustainability over immediate gains.

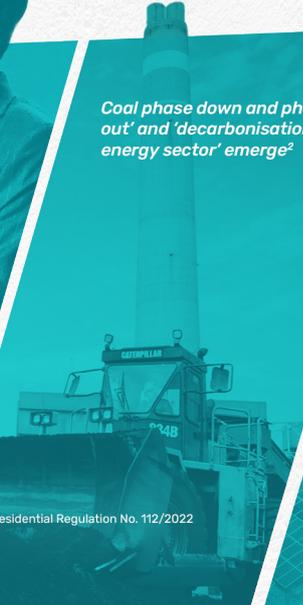
### PRESIDENTIAL PLEDGE



President Jokowi pledged to reach net-zero emissions by 2060 or sooner<sup>1</sup>

<sup>1</sup>Enhanced Nationally Determined Contribution (NDC) Document 2022

### KEY TERMS



*Coal phase down and phase out' and 'decarbonisation of energy sector' emerge<sup>2</sup>*

<sup>2</sup>Presidential Regulation No. 112/2022

### REGULATION



The National Energy Policy (KEN) acts as a definitive framework that steers the nation's energy system

In 2022, Presidential Regulation 112/2022 pledged to halt new coal-fired power plants, retire existing ones early, and introduced a tariff structure supporting renewable energy growth.

### INTERNATIONAL ENDORSEMENT



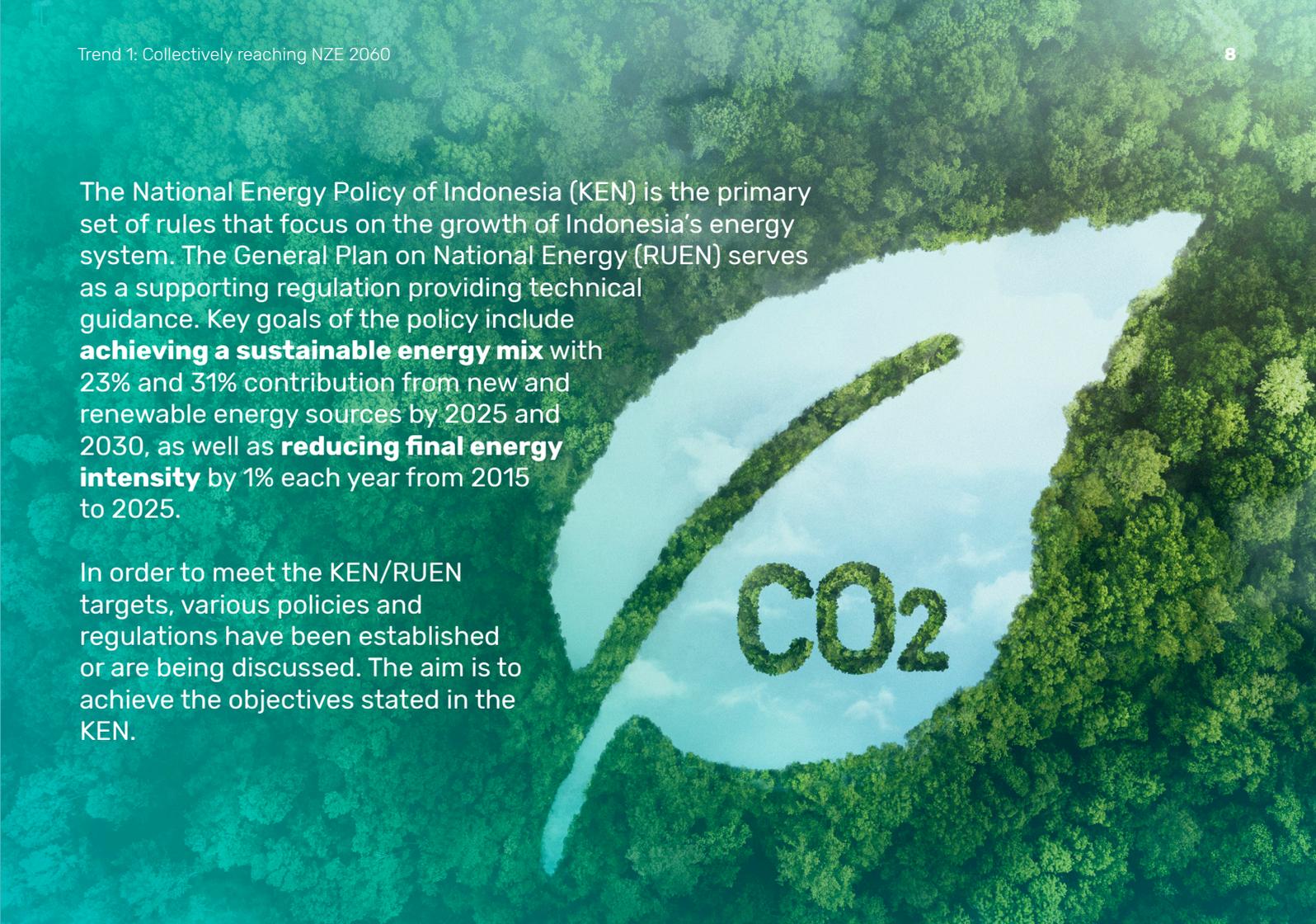
Indonesia received US\$24.05 billion from JETP, ETM and CIF-ACT with a focus on clean energy, retiring coal power plants, and energy efficiency<sup>3</sup>

By 2030, the aim is to peak total power sector emissions and cap them at 290 MT of CO2 ...and accelerate renewable energy deployment, aiming for at least 34 percent of all power generation.

<sup>3</sup>Just Energy Transition Partnership (JETP)  
Energy Transition Mechanism (ETM)  
Clean Investment Fund-Accelerated Coal Transition (CIF-ACT)

The National Energy Policy of Indonesia (KEN) is the primary set of rules that focus on the growth of Indonesia's energy system. The General Plan on National Energy (RUEN) serves as a supporting regulation providing technical guidance. Key goals of the policy include **achieving a sustainable energy mix** with 23% and 31% contribution from new and renewable energy sources by 2025 and 2030, as well as **reducing final energy intensity** by 1% each year from 2015 to 2025.

In order to meet the KEN/RUEN targets, various policies and regulations have been established or are being discussed. The aim is to achieve the objectives stated in the KEN.

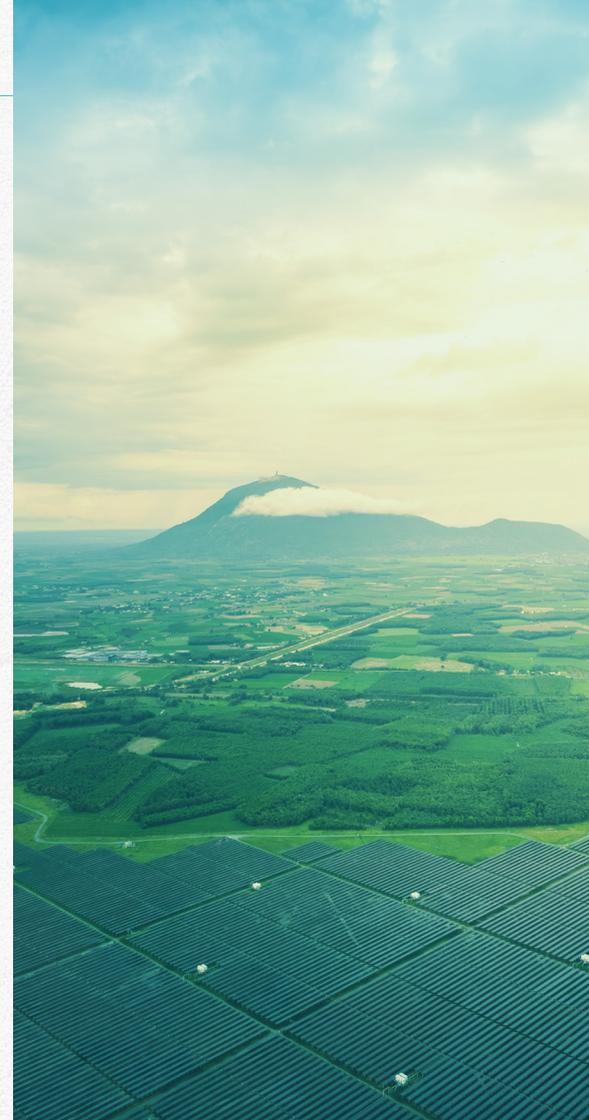
An aerial photograph of a lush green forest with a winding river. In the center of the river, the letters 'CO2' are formed by a dense thicket of trees, symbolizing carbon emissions in a natural setting.

CO<sub>2</sub>

The National Energy Policy of Indonesia (KEN) is a central driver of the country's energy direction. While earlier versions of KEN might not have explicitly addressed the energy transition (ET), the present KEN holds key significance as a legal framework for ET's progression. Supported by the energy law (UU 30/2007), KEN establishes targets and strategies for a cleaner energy system.

The General Plan on National Energy (RUEN) complements KEN by offering technical guidance. The policy targets a sustainable energy mix, aiming for 23% and 31% contributions from new and renewable sources by 2025 and 2030.

Notably, the incorporation of the energy transition into KEN, alongside UU 30/2007, provides a robust foundation for legalizing and operationalizing the ET in Indonesia. This integration ensures a clear roadmap, legal basis, and defined goals for steering the shift towards sustainable energy sources, reinforcing Indonesia's commitment to a greener energy future.



Overview of key sustainable energy policies, particularly the support for renewable energy (RE) reaching NZE 2060 in the past three years:

<p><b>RE</b></p> <p>PR No 112/2022 on Acceleration of RE Development for Electricity Generation</p>	<p>MEMR Reg No 26/2021 on Solar Rooftop</p> <p>MEMR Reg No 24/2021 on Provision and Utilization of Biodiesel Types of Biofuels</p> <p>MEMR Reg No 37/2018 on Working Area, Granting Permit, and Assignment of Geothermal Concession</p> <p><b>MEMR;</b></p>	<p>GR No 79/2014 on National Energy Policy – 23% RE target</p> <p><b>DEN</b></p>	<p>MoF Reg No. 80/PMK.08/2022 on Geothermal Development Support through Utilization of Geothermal Infrastructure Financing Fund to PT. SMI</p> <p>MoF Reg No. 130/PMK.010/2020 on Provision of Facility for Corporate Income Tax Reduction</p> <p>MoF Reg No. 80/PMK.08/2022 on Geothermal Development Support</p> <p><b>MoF</b></p>	<p>Green RUPTL 2022-2030</p> <p><b>PLN</b></p>
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<p><b>Energy Conservation</b></p>	<p>MEMR Reg No 14/2021 on Implementation of Minimum Energy Performance Standards for Energy Utilizing Equipment</p> <p><b>MEMR;</b></p>
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<p><b>Electric Vehicle</b></p>	<p>MEMR Reg No 14/2021 on Implementation of Minimum Energy Performance Standards for Energy Utilizing Equipment</p> <p><b>MEMR;</b></p>	<p>Mol Reg No. 6/2022 on Specification, Roadmap Development, Provision of Local Content Calculation for Battery Electric Vehicle</p> <p><b>Mol</b></p>
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<p><b>Carbon Pricing</b></p> <p>PR No.98/2021 on Implementation of Carbon Economic Value for Achieving NDC Target and controlling GHG Emission in National Development</p>	<p>MEMR Reg No 16/2022 on Administration of Carbon Economic Value for Sub-sector Power Plant</p> <p><b>MEMR;</b></p>	<p>MoEF Reg No 21/2022 on Guidelines of Carbon Economic Value Implementation</p> <p><b>KLHK</b></p>	<p>Law No.7/2021 concerning Harmonization of Tax Regulation</p> <p><b>MoF</b></p>
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Since 2021, the private sector has emerged as a pivotal force in driving the energy transition. This momentum has culminated in G20 pledges, with corporations actively announcing their commitments to greening global supply chains through renewable energy adoption, responsible sourcing practices, capacity building, and financial support. These actions, taken collectively, signify a profound shift towards sustainability within the corporate landscape.

This surge of corporate involvement and commitment aligns closely with narrative trends. As narratives shape public perception, corporate entities are recognizing the growing demand for environmentally conscious practices. They are leveraging narrative trends that emphasize sustainability, clean energy, and responsible business conduct to not only meet market expectations but also foster positive reputations. This symbiotic relationship between narrative trends and corporate behavior underscores the interconnected nature of societal sentiment and private sector initiatives in propelling the energy transition forward.



Since 2021, there has been increasing activities from the private sectors emerging as a key player in the energy transition: Cumulating at pledges at G20, corporations announce their ambitions of greening their global supply chains by relying on renewable energy in their manufacturing and building responsible sourcing practices, while also providing capacity strengthening and financial assistance.

- As the first venture capital to sign Principles for Responsible Investment (PRI), **East Ventures** committed to doubling down on climate tech investments.
- Steel making factory **PT Gunung Raja Paksi Tbk** and **Fortescue Future Industries** plan to conduct a Technical Feasibility Study to explore opportunities to use green hydrogen or ammonia as alternative fuel sources.
- Indonesia's largest industrial gas producing company, **PT Samator** switches to Liquefied Natural Gas (LNG) with the ultimate goal of using green hydrogen.
- Businesses such as **Pan Brothers Group** and **Danone Indonesia** are applying and striving for "Green Building" certifications and solar rooftop integration in their factories.
- **ERM** partners with **KADIN Net Zero** to assist and hasten the industry ecosystem in their transition to net zero, by offering ESG expertise and practical knowledge to support the process.
- **PT AGRINDO Prakarsa Group** commits to reaching NZE by switching to solar panels to power its operations of creating agriculture products.
- **BASF** uses renewable raw materials and saves fossil fuel resources to reduce CO2 emissions in its chemical engineering systems.
- **HSBC Indonesia** promotes sustainable financing, recently lending an IDR 27 billion green loan to ECO, a subsidiary of PT Alkindo Naratama Tbk, which produces recycled paper for reuse.
- LG signs an MoU with Indonesia on an integrated battery production project, while **PT Semesta Energi Services** adds battery recycling to their energy line of work.



TREND 2:

## **Bigger strides needed for energy transition**

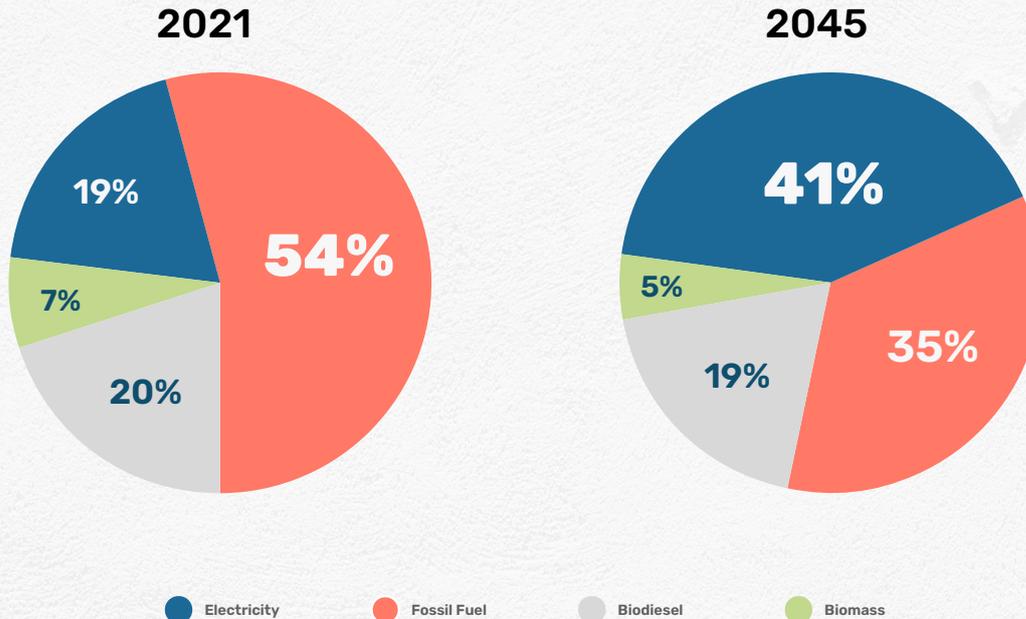
Despite adopting green policies and gaining experience in developing solar, wind, hydro, and biomass renewable energy projects, Indonesia is under significant pressure to expedite its energy transition due to the impending climate and energy crises. The share of renewable energy in the energy mix is still relatively low.

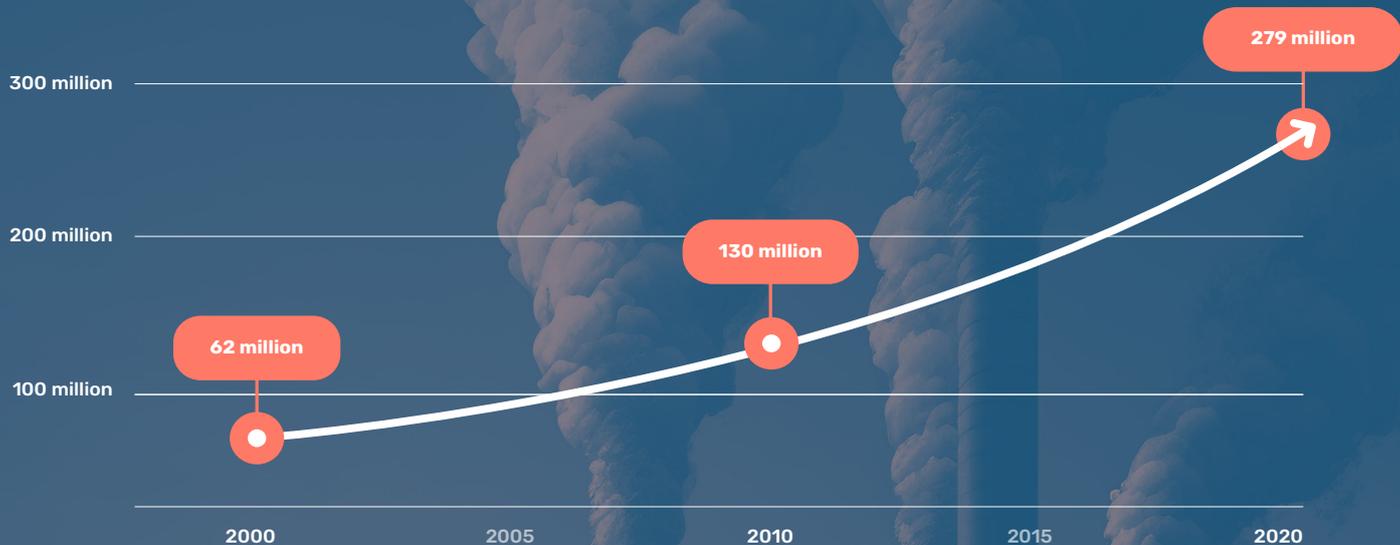
With recent regulations in effect, Indonesia is currently in a transitional phase, moving away from heavy reliance on coal and navigating complex regulations that favor renewables. However, the overall low awareness of the potential benefits of a renewable energy-based system has resulted in a slower shift towards cleaner energy.

## Indonesia's current coal reliance

Indonesia's heavy dependence on fossil fuels, with coal being the primary contributor, has resulted in considerable levels of greenhouse gas emissions.

**Currently, fossil fuels dominate with 54% of national energy demand, while biodiesel and biomass account for 20% and 7%, and electricity makes up 19%.**





The emissions from electricity generation have steadily increased from 62 million tonnes in 2000 to 130 million tonnes in 2010, and then doubled to 279 million tonnes in 2020.

Despite the latest PLN's green Electricity Supply Business Plan (RUPTL), which suggests a focus on environmentally friendly plans, there are still intentions to add 13.8 GW of coal power plants in the coming decade. The plan projects that renewable energy will only make up around **24% of the energy mix by 2030**, leading to an overall increase in emissions from the power and energy sectors.

As the world's leading coal exporter last year, Indonesia faces a delicate balance between economic benefits and environmental consequences due to its heavy reliance on coal as a major export commodity. In 2022, the export ban on thermal coal drew attention from international partners regarding export possibilities, while online media took it as a sign of uncertainty from the government.



***“As soon as our coal export is halted for only two weeks, I begin to receive many calls. Head of states, prime ministers, and presidents. Oh, this one relies on us [Indonesia’s coal export], this one’s too, and also that one. Turns out there are so many, I’m quite surprised,”***

*said Jokowi in his remarks at the 2022 Kompas100 CEO Forum at the State Palace, Jakarta on Friday, December 2, 2022, quoted by Antara.*

Despite this ban, Indonesia managed to produce 687 million tonnes of coal and exported 494 million tonnes. Energy and Mineral Resources Minister Arifin Tasrif announced plans to achieve a record coal production of 695 million tonnes in 2023, with exports reaching 518 million tonnes.

Throughout the previous year, Indonesia experienced increased coal exports to India, South Korea, Taiwan, and the Philippines, while shipments to China saw a decline. Meanwhile, domestic coal consumption is projected to decrease to 177 million tonnes in 2023, down from 193 million tonnes in 2022.

The country faces a conundrum as it grapples with the implications of coal dependency on its journey towards embracing more sustainable energy sources and policies. Energy players are mindful of the potential hindrance fossil fuel advocacy might pose to the transition. At the same time, decision-makers wrestle with striking a balance between sustaining economic growth and addressing climate change concerns.

## The urgency of sustainability education for present and future generations

Indonesia's youth population, with a median age of 30 (World Bank, 2021) may lack understanding of climate change, its causes and consequences, and have limited knowledge of renewable energy and the negative social, environmental, and economic impacts of fossil fuel combustion. This gap in awareness of today's generation could have significant implications for Indonesia's future outlook and its ability to manage environmental concerns.

In 2021, **Development Dialog Asia and Communication for Change** conducted a survey for people aged 16-60, and found:



A survey published in 2021 revealed that 88% of Indonesian respondents said they recognized the term 'climate change', but 44% of them did not actually understand its meaning correctly.



Half of the respondents (50%) are not aware that oil and coal will run out

On a global level, **Meta and Yale Program on Climate Change Communications** summarized Indonesians knowledge to be lower than most asian countries.

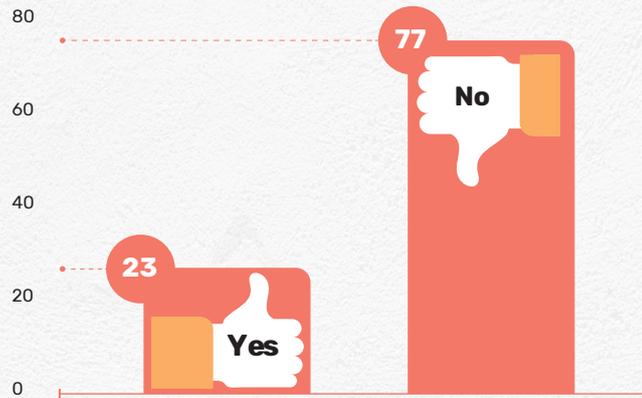
29% of Indonesians have a lot or moderate knowledge about climate change.

Only 18% of Indonesian respondents believe that climate change is caused by human activities.

Indonesia and Tanzania showed lower level of support or awareness toward the increasing use of renewable energy.



Coaction Indonesia and Change.org found in 2021 that Millennials and Gen Z in Indonesia have limited knowledge of the benefits of renewable energy and the scarcity and harmfulness of fossil fuels.



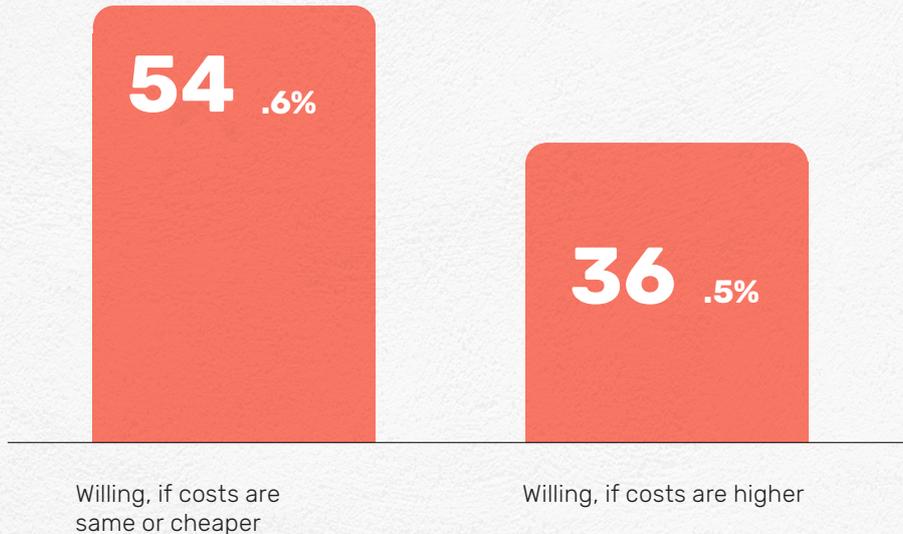
The study also revealed that respondents associated renewable energy with positive sentiments such as “hope” and “peace of mind”. This was largely due to the perception among many respondents that Indonesia’s natural resources are unlimited.

**However, providing basic information on these topics can increase support for renewable energy.**



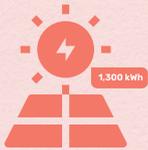
## Societal expectations and the push factors for change: price points

The attitudes of Indonesians towards renewable energy policies are influenced by the prices of household electricity. **Coaction Indonesia and Change.org** found Indonesians preference and acceptance of electricity prices generated by renewable energy to be the same or lower than their current rates. This general perception and expectation for low electricity tariffs causes pressure on the government to keep electricity costs affordable.



The survey also indicated a significant proportion of respondents expressed a preference for renewable energy over fossil fuels, **provided that the costs are either equivalent or lower.**

In a survey that focused on youth by **Communication for Change**, Indonesian young people believe that the electricity prices generated by renewable energy should be lower than what they currently pay. Additionally, households with higher socioeconomic status displayed an early interest in installing solar panels at their residences.



Households consuming over 1,300 kWh are more open to installing rooftop solar panels to reduce long-term electricity expenses.



Most respondents prefer using energy-efficient technology to save energy instead of exploring new sources of energy like biofuels and organic waste.

Without proper understanding, the public may not support policies and initiatives aimed at promoting clean energy. This lack of awareness can perpetuate the use of fossil fuels, which can have significant environmental and health impacts.



TREND 3:

## **Increased news report on energy transition**

Media plays a crucial role in driving conversations and shaping public narratives on energy transition, leading to increased public awareness and societal responsibility. From 2020 to 2021, news coverage across Indonesian media on energy transition increased by 160% with the following main narrative: **Indonesia is willing to carry out energy transition, which is driven by external factors such as NDC commitment and international funding.**

In the past three years, most stakeholders, including government, business, and civil society, supported the energy transition. Few openly opposed it, mainly concerning funding and energy availability. CASE also found no narratives that favoured fossil fuels as a better choice.

## Indonesia News Coverage

# 2020

The energy transition needs to be accelerated through the early retirement of coal-fired power plants. But, Indonesia needs funding support to make this happen.

# 2021

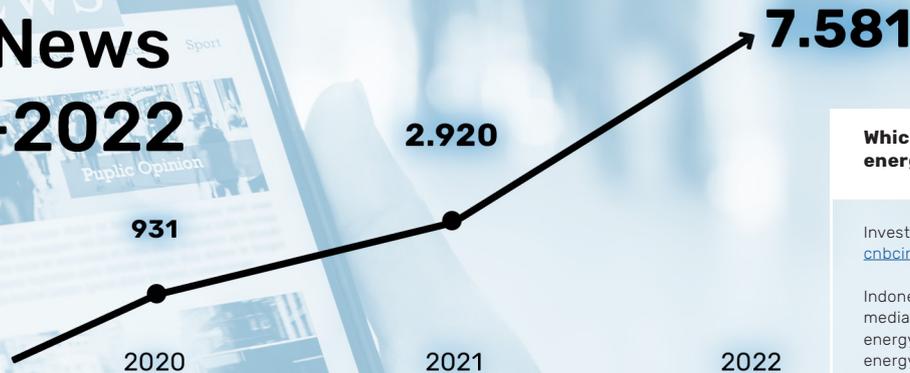
The acceleration of energy transition is needed as more developed countries said they will not fund any fossil fuel power plants in the future. Due to this, the Government of Indonesia expedites the implementation of the energy transition by retiring the coal-fired power plants earlier.

# 2022

Energy transition is needed, but will be focused after the target of the 35,000 MW Electricity Program has been completed. The government is experimenting with new technologies for an environmentally-friendly balanced mix between new and renewable energy (EBT) and current energy fuels.

## Total News 2020-2022

N: 11.432



Total News related to Energy Transito in the field of Electricity and Power

### Which media are communicating energy transition the most?

Investor Daily, Kontan.co.id, Katadata.co.id, [cnbcindonesia.com](http://cnbcindonesia.com)

Indonesian economic and business media are giving high attention to the energy transition issue as it will affect the energy industry and related businesses, particularly coal.

## Disruptions beyond the controlled narratives: Global Energy Crisis

**The recent disruption caused by the Russian-Ukrainian War has led to a U-turn in plans and directions for stakeholders in Indonesia, causing setbacks for several clean energy narratives.**

In 2022, Indonesia [became](#) the top coal exporter with a total of 469 million tons, 9% higher than the previous year. Hendra Sinadia, Executive Director of APBI-ICMA [mentioned](#) in media the state received a revenue of 7.8 million USD, with high contribution from coal trading.

[Reuters](#) reported that Indonesia set a new record pace for shipments, and became the first country to surpass half a billion tonnes of coal exports in a single year.

In February 2023, [NPR](#) drew global attention to the conflicting situation in Indonesia, where the country's reliance on coal contradicts its commitments to renewable energy and mitigating climate change. Despite significant global investments towards transitioning away from coal as an energy source, Indonesia makes headlines due to its ongoing construction of new coal plants.



TREND 4:

## **Stakeholder key messages in energy transition**

Government systems along with public religious groups, have shown some interest in supporting the energy transition. However, the most significant voices in promoting this transition come from NGOs and international organizations. Moreover, the youth show remarkable support for renewable energy when they receive clear and informative messages. Together, these diverse groups contribute positively to advancing the cause of a sustainable and renewable energy future.

Stakeholder	Key Actors	Key message
Government systems	Ministry for National Development Planning Ministry of State-Owned Enterprises Ministry of Energy and Natural Resources Coordinating Ministry for Maritime and Investment Affairs Coordinating Ministry for the Economy	<b>Bappenas, MEMR, and several political parties have been actively promoting the energy transition in Indonesia</b> , showcasing their commitment to a cleaner and sustainable future. While not everyone advocates for a complete energy transition, many support ‘coal phase-down’ strategy. This approach involves adopting supercritical technology to reduce carbon emissions from coal power plants and incorporating natural gas as a temporary solution during the transition process.
NGOs, International Organizations and Think Tanks	IESR, Net Zero World Initiatives, GIZ, Madani Berkelanjutan, and Energy Transition Partnership (ETP), Koalisi Bersihkan Indonesia, Masyarakat Konservasi dan Efisiensi Energi Indonesia	The Rockefeller Foundation has declared its intention to aid Indonesia in closing steam power plants, following expressions from the Institute for Essential Services Reform (IESR) to “shut down coal power plants with capacity totalling 9.2 gigawatt (GW)” and pledges from Koalisi Bersihkan Indonesia (KBI) to “revoke plans to build new coal-based power plants”. <b>This statement exemplifies the strong position taken against coal, in line with reaching commitments under the Paris Agreement.</b>
Religious Groups	PBNU, Yayasan Budha Tzu Chi, GKI, PDHI, Walubi	<b>Climate and environment-related narratives are becoming increasingly common, yet energy transition is rarely linked to these discussions.</b> This might be due to the difference between the indirect impacts of fossil fuel consumption (such as increased carbon emissions) and the direct environmental impacts of waste disposal (e.g., ocean and land contamination.)
Youth	Youth organizations	<b>Youth support renewable energy when they know its advantages:</b> For example a clean, affordable, and reliable electricity. Educating them on fossil fuel limitations and cost-effectiveness of renewables will make them more likely to support it.



TREND 5:

## **Emerging instruments and technologies**

New incentive schemes and technologies are aiding the transition to a cleaner energy system. Policy and financial instruments, such as green bonds and tax incentives, address regulatory risks that impede investment in renewable energy. Emerging technology solutions, such as energy storage, smart grids, carbon capture, nuclear, and hydrogen, are also playing a role in the shift towards a low-carbon economy, with varying approaches taken among actors.

## Mitigating regulatory risks

In its 2022 [study report](#), CASE recommends prioritizing policy de-risking instruments for Indonesia's renewable power sector over financial de-risking instruments.



Reforming incentives, pricing policies, especially on pricing policy, subsidy, and/or through carbon tax.



Performance-based lending, concessional debt, and green bonds are available in Indonesia, but other instruments such as guarantee provision, seed capital, and mezzanine financing are not yet available.

This is due to current issues in ET being primarily in regulatory aspects. Concurrently, with the aim of achieving a “growth-enabling” regulatory environment, the development of financial instruments should also be pursued.

## Key policy and financial instruments:

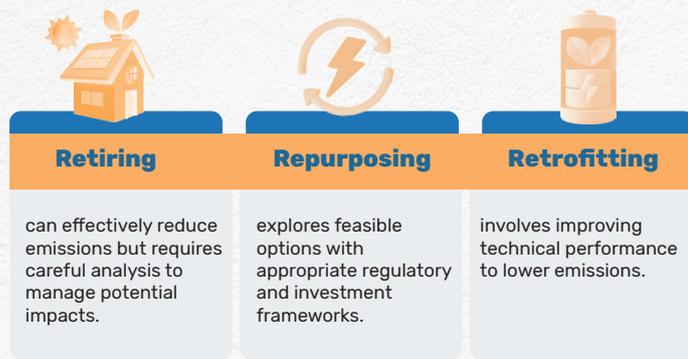
**Policy de-risking instruments, including subsidies and incentives,** play a crucial role in financing energy transition (ET) by supporting the adoption of renewable energy and energy-efficient technologies. In Indonesia, businesses are mandated to consider the social costs of emissions in their production costs.

**Well-designed carbon pricing instruments,** such as carbon taxes and emission trading schemes, have the potential to promote green recovery, stimulate economic growth, and bridge funding gaps for clean energy development.

## Decarbonization pathways from CFPP

The majority of power plants still heavily rely on fossil fuels, particularly coal-fired power plants (CFPP), which poses a challenge in achieving the target of a 23% renewable energy mix by 2025.

Efforts in Indonesia right now to reduce carbon emissions in the electricity sector explore options such as retiring, repurposing, and retrofitting CFPP.



A comprehensive approach is needed for risk analysis, including thorough evaluation, feasibility studies, and capacity development, with a strong emphasis on achieving a just transition to cleaner energy sources.

## In order to facilitate the necessary transactions for decarbonizing CFPP, it is essential to establish new policies and regulations as a prerequisite for attracting long-term finance and investment.

The aim of financial transactions and fund mobilization from the public and private sectors is to accelerate the growth of renewable energy in the electricity sector. The financing mechanism is designed to serve the following purposes:

1. Ensure the continuation of public services (electricity) in compliance with regulatory standards
2. Provide fair compensation for potential loss of net cash flows
3. Offer reasonable compensation for the provision of renewable energy generators.

The developed financing mechanism should account for various costs, including:

1. Potential charges for capital recovery, expedited by plant closures.
2. Decommissioning costs for power plants.
3. Impact costs on the local economy and supply chain.
4. Repurposing expenses.
5. Network development costs related to transmission, distribution, and system operation.
6. Calculation of the expected volume of electricity to be provided under business-as-usual conditions.

## Technologies

In March 2023, CASE Indonesia held a multi-stakeholder dialogue to discuss and better understand emerging energy technologies and their potential to support Indonesia's energy transition. The discussion found that in navigating our energy landscape, it is vital to embrace **a diversified approach that combines energy storage, smart grids, cautious exploration of carbon capture, responsible utilization of nuclear energy, and selective deployment of hydrogen.**

Among these, **energy storage** emerges as a crucial component, enabling us to manage the inherent variability of renewable energy sources like wind and solar.

pilot

The implementation of **smart grids** holds the potential to optimize electricity production, distribution, and consumption, bolstering the reliability and efficiency of our energy systems.

pilot

However, **carbon capture and storage (CCS)** technology, while particularly relevant for heavy industries struggling to reduce their emissions, is not yet at a mature and deployable stage. As a result, it should not be solely relied upon for emissions reduction planning.

untested

**Nuclear energy**, despite its low-carbon attributes, poses risks from a social perspective that necessitate careful navigation.

untested

On the other hand, **hydrogen** presents itself as a useful tool in specific contexts, offering viable alternatives for sectors facing electrification challenges.

untested

## How do the public perceive and adapt the emerging technologies?



In 2020, Cirata Reservoir Floating Solar Power Plant (Solar Power Plant Terapung Waduk Cirata) became widely discussed in online media, concurrently with the New Energy and Renewable Energy Bill (NERE)

### ENERGY STORAGE



Several organizations criticised the draft of the New Energy and Renewable Energy Bill (NERE) for its ambiguity in combining fossil, nuclear, and renewable energy in a single bill.

### NUCLEAR



In 2021, carbon emissions trade and tax was the 4th top topic discussed by online media.

### FINANCIAL INSTRUMENTS

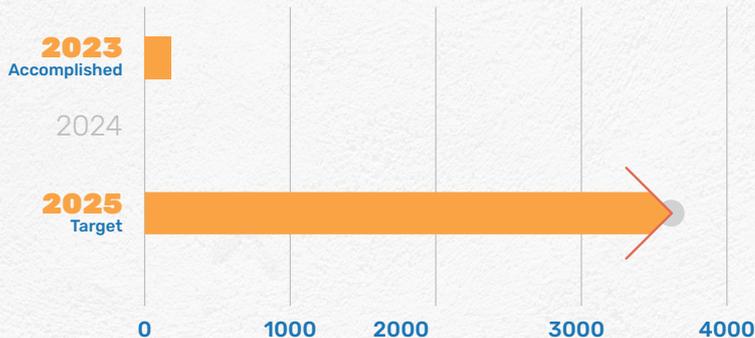


Throughout 2021-2022, media narratives show that the Government of Indonesia recognizes the urgency to accelerate the energy transition as Indonesia aims to retire coal-fired power plants earlier. However, to make this transition possible, Indonesia seeks financial support.

### CCS

## Progress and target from emerging technologies:

### Solar rooftops



- Indonesian government aims for 3.6 GW of rooftop solar power by 2025.
- Currently, only 71.35 MW have been installed due to unfavorable investment climate and inconsistent political commitments.

### CCS

In Indonesia's National Action Plan on Climate Change, passed through Presidential Decree No. 61 in 2011, Indonesia recognized that CCS could contribute up to 40% of the energy sector's target reductions.

The Ministry of Energy and Mineral Resources (**MEMR**) of Indonesia has recently issued MEMR Regulation No. 2 of 2023 on the Organization of Carbon Capture and Storage (**CCS**) and Carbon Capture, Utilization and Storage (**CCUS**) for Upstream Oil-and-Gas Business Activities (**MEMR 2/2023**)



TREND 6:

## Road to a Greener Indonesia

As Indonesia moves forward, a new Long Term National Development Planning (RPJP) for the period of 2025-2045 is currently under development.

The RPJP 2025-2045 presents a significant opportunity for Indonesia to overcome the middle-income trap, achieve its centenary milestone by 2045, and transition to a sustainable green economy. It aims to improve citizens' welfare, protect the environment, raise per capita income to developed country levels, eradicate poverty, enhance global leadership and influence, boost human resources competitiveness, and reduce greenhouse gas emissions to reach net-zero.

**RPJP**, short for Rencana *Pembangunan Jangka Panjang* is a crucial strategic plan that outlines Indonesia's vision, objectives, and strategies for development. Led by the Ministry of National Development Planning/Bappenas

## Assessing stakeholder opinion and narratives:

Indonesia's journey towards an energy transition is a complex and dynamic process, involving a myriad of stakeholders with diverse perspectives and priorities. As public awareness and comprehension of the energy transition landscape have grown over time, so too have the narrative trends. In light of these developments, the forthcoming RPJP 2025-2045 aligns with

**CASE's essential findings, capturing the key themes in the stakeholder narrative on Indonesia's energy transition.**

**The main findings:** the consensus to phase out coal and reduce carbon emissions is gaining momentum, signaling a collective commitment towards sustainable energy practices. Yet, at the same time, discussions surrounding the potential development and utilization of "clean" fossil fuels continue to generate debate. Environmental concerns and technological feasibility stand at the heart of this discussion.

These narratives was collected from 2020-2022 through:

Stakeholder mapping

Desktop research of public statement of media coverage, press release and/or ceremonial events.

Stakeholder analysis and management planning

SWOT analysis



## Coal must be phased out

The drive to phase out coal in Indonesia is steadily gaining momentum. Prominent think tanks and NGOs, including the Institute for Essential Services Reform (IESR), Koalisi Bersihkan Indonesia, and the Rockefeller Foundation, have taken up the mantle, advocating for the retirement of coal-fired plants and strategically devising plans to facilitate the decommissioning of existing coal facilities. Their concerted efforts signal a resolute commitment to navigate the country towards a greener and more sustainable energy landscape.

This decisive shift away from coal is of paramount importance in achieving the carbon reduction objectives outlined in the Paris Agreement. Government officials are optimistic about the country's transition to renewable energy sources. In support of this endeavour, the Just Energy Transition Partnership, authorized during the 2022 G20 summit, will provide vital financial assistance to those impacted by the transition.

## Clean fossil fuels are OK for energy transition

The discussion surrounding the use of clean fossil fuels in the energy transition sparks a range of viewpoints. In our study, approximately half of the stakeholders have chosen to remain neutral and refrain from taking a side. Public organizations, driven by local perspectives and agendas, endeavour to find a “win-win solution” that preserves fossil fuels’ vital role without diverting from non-renewable energy sources.

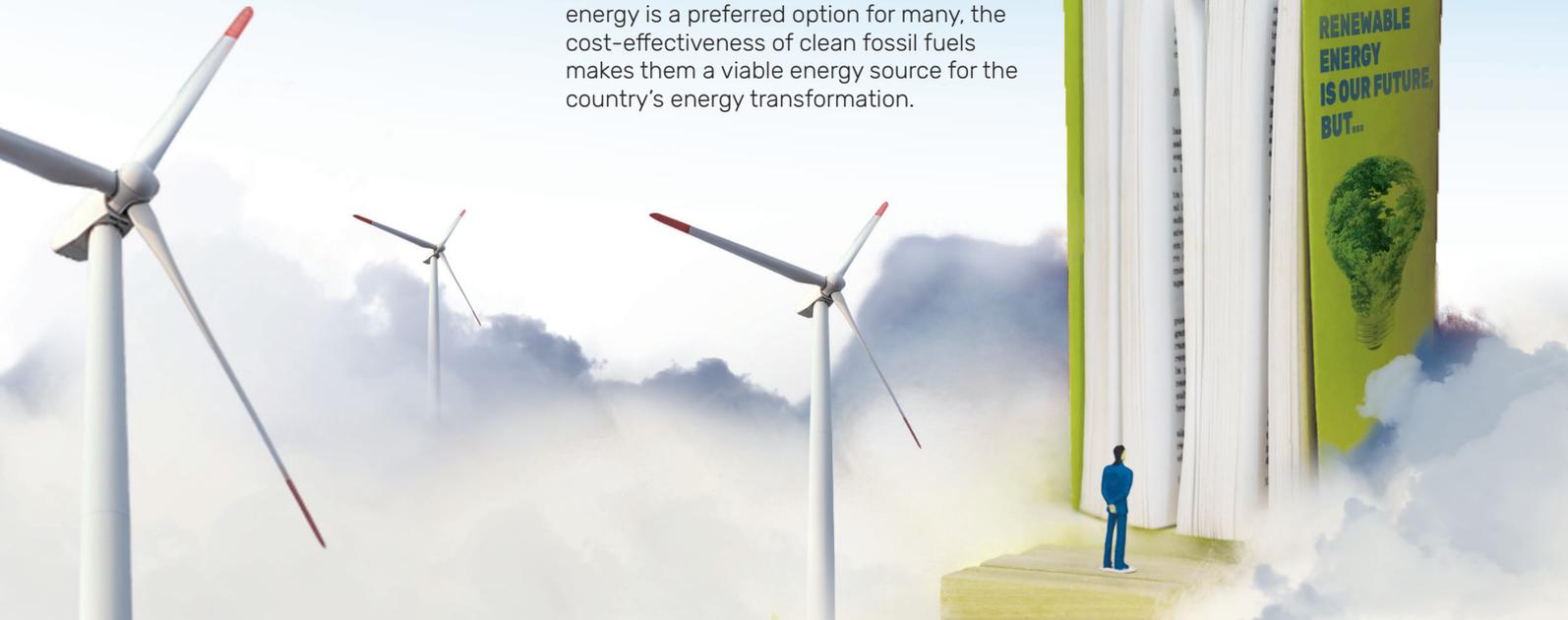
Proponents of clean fossil fuels put forth a compelling argument, highlighting their significance in facilitating a transition to a low-carbon economy. On the other hand, others emphasize environmental concerns and advocate for a shift towards renewable energy alternatives. As this dialogue unfolds, the potential acceptance of clean fossil fuels as a viable energy choice for the future holds a certain level of uncertainty.



## Renewable energy is our future, but...

Despite the overwhelming public support for renewable energy, clean fossil fuels remain an attractive option for Indonesia's energy transformation.

**The Indonesian Coal Mining Association** and the **Indonesian Hindu Dharma Society** argued that the country's abundant coal reserves and comparatively low production costs make it an ideal energy source. While renewable energy is a preferred option for many, the cost-effectiveness of clean fossil fuels makes them a viable energy source for the country's energy transformation.





Indonesia stands at a critical juncture in its energy transition, with diverse stakeholders shaping the narrative and influencing the country's future energy landscape. As we move closer to the RPJP 2025-2045, the nation must navigate through these perspectives, weighing the implications of embracing "clean" fossil fuels against the call for renewable energy solutions. A collaborative and informed approach is crucial to forge a sustainable path forward, preserving the environment while meeting the nation's growing energy needs.

The achievement of the country's climate objectives and net-zero emissions necessitates a collaborative effort from all stakeholders, including the government, businesses, and individuals. CASE Indonesia is committed to supporting the shaping of Indonesia's energy transition narrative by providing evidence-based solutions. Our goal is to facilitate an expedited shift towards a low-carbon, affordable, equitable, and economically viable energy system in Indonesia.

CASE	: Clean, Affordable, and Secure Energy	NERE	: New Energy and Renewable Energy Bill
CCS	: Carbon Capture and Storage	NZE	: Net-Zero Emission
CIF-ACT	: Clean Investment Fund-Accelerated Coal Transition	Perpres	: Peraturan Presiden (Presidential Decree)
CFPP	: Coal-Fired Power Plants	PLN	: Perusahaan Listrik Negara (State Electricity Company)
CSO	: Civil Society Organization	RPJP	: Rencana Pembangunan Jangka Panjang (Long Term Development Plan)
ET	: Energy Transition	RUEN	: Rencana Umum Energi Nasional (General Plan on National Energy)
EBT	: Energi Baru Terbarukan (Renewable Energy)	RUPTL	: Rencana Usaha Penyediaan Tenaga Listrik (Electricity Supply Business Plan)
ETM	: Energy Transition Mechanism	UU	: Undang-Undang (Law)
ETP	: Energy Transition Partnership		
IESR	: Institute for Essential Services Reform		
JETP	: Just Energy Transition Partnership		
KEN	: Indonesia's National Energy Policy		
MW	: Mega Watt		



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