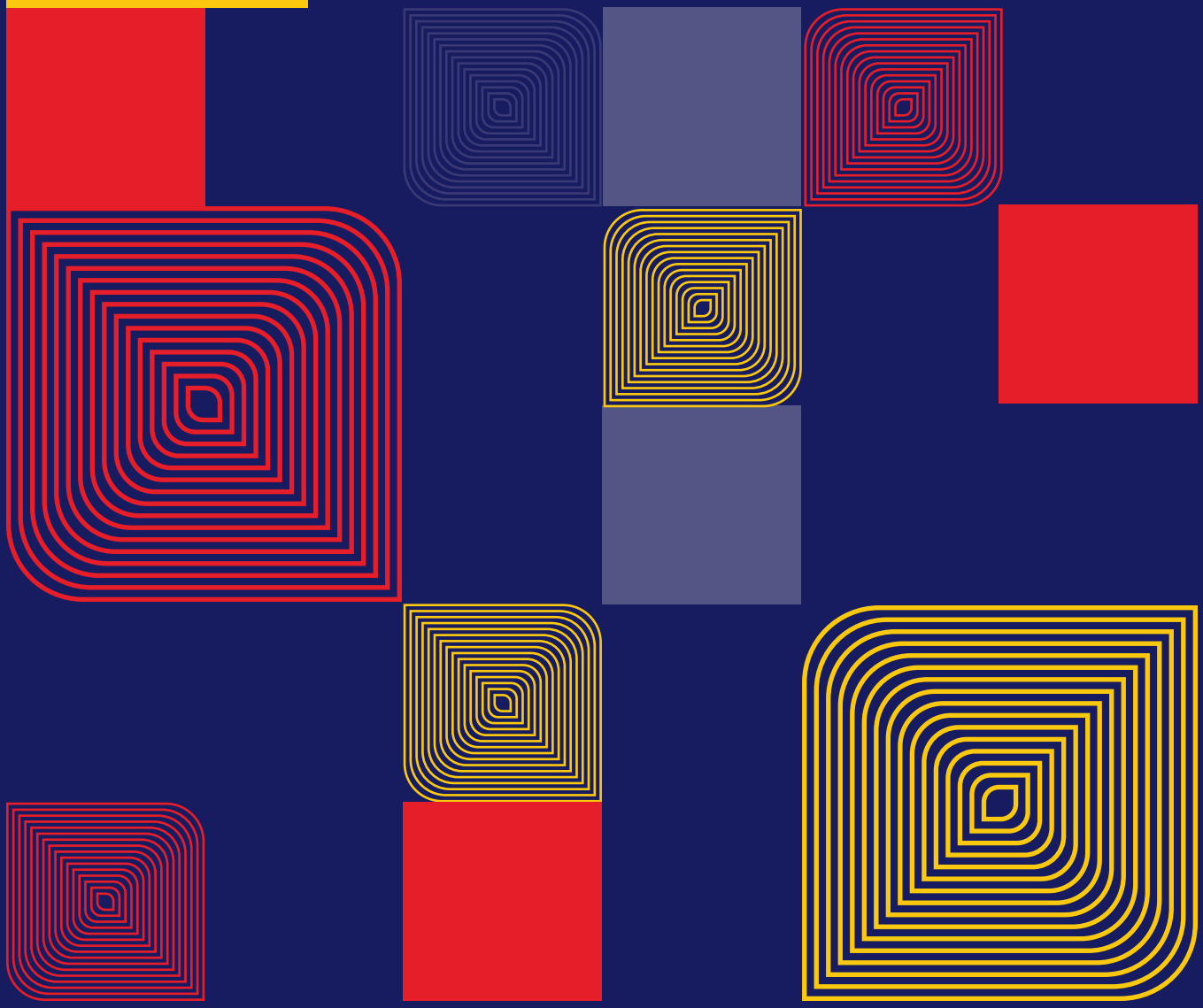
Future Ready Business Series 2025

Ambition to delivery in Indonesia's just energy transition

Indonesia



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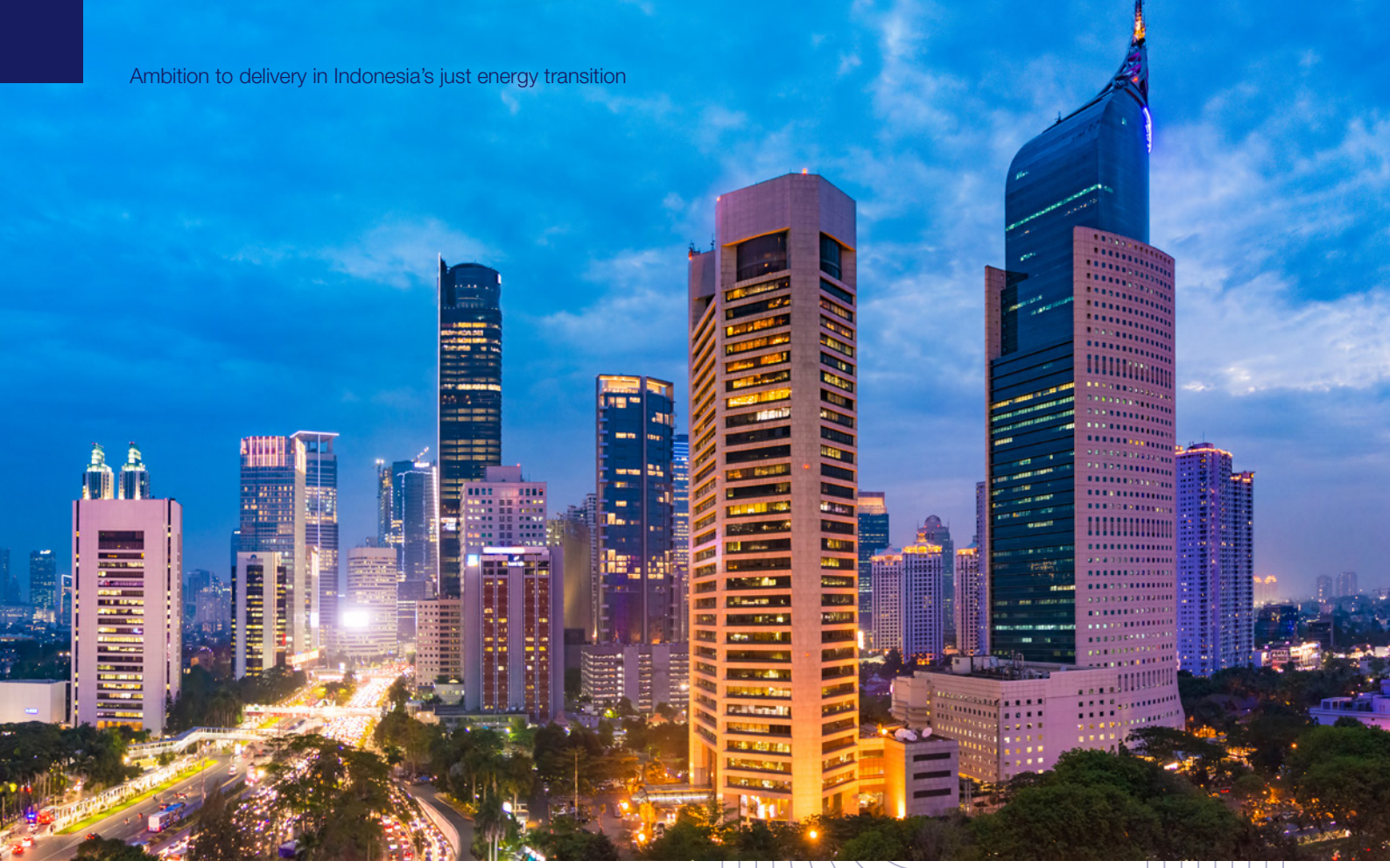

About the series

Through the Future Ready Business Series, RMIT's College of Business and Law connects local business leaders with its growing Alumni community. The program provides a platform to network, exchange knowledge, and learn from global experts in business, technology, and social impact.

Launched in 2020 to provide the RMIT alumni business community with practical advice to respond to the challenges created by the pandemic, the "Business Transformation in Challenging Times" webinar series attracted alumni from across the globe, including Australia, Spain, Vietnam and Singapore.

The series was rebranded as the *Future Ready Business Series* in 2022 and provides the global alumni network, business leaders and local Government bodies with valuable insights into emerging business trends and the evolving global marketplace through in-person events.

Since its inception, there have been 33 initiatives in this series held in Australia, Vietnam, Singapore, India, China and Indonesia.

This paper shares insights drawn from a recent Future Ready Business Series event hosted by RMIT's College of Business and Law, in collaboration with BINUS Center of Excellence in Sustainability, BINUS University, Indonesia. The event sought to scope collaborative and actionable research projects that involve government, industries, consultants, and academia to foster and accelerate Indonesia's just energy transition.

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Executive Summary

As Indonesia strengthens its commitment to a Just Energy Transition (JET), RMIT College of Business and Law seeks to contribute strategically by helping shape initiatives and practical pathways that support Indonesia's energy transition as a critical regional partner for Australia. This aligns closely with the broader bilateral cooperation between Australia and Indonesia, including the launch of KINETIK – the Australia-Indonesia Climate and Infrastructure Partnership in March 2024 and the signing of a bilateral MoU in July 2024 between Australia and Indonesia to support the energy transition and promote investment in energy infrastructure and green energy manufacturing.[1, 2]

The RMIT–BINUS Indonesia Just Energy Transition Industry Roundtable workshop was held on 23 October 2025 as part of RMIT College of Business and Law's Future Ready Business Series, and BINUS Center of Excellence in Sustainability. It brought together industry, government, and academic stakeholders to identify and collaborate on actionable research initiatives to support and accelerate Indonesia's just energy transition. Discussions at the workshop underscored the need for stronger institutional coordination to bridge the gap between policy ambition and implementation.

Participants highlighted the potential value of a central JET Collaboration Council to align policy priorities, data systems, and financing decisions. Universities were identified as an underutilised asset, capable of supporting policy co-design, applied research, metrics development, and workforce capability-building. A three-tier collaboration model was proposed, spanning scalable engagement, strategic investment, and targeted pilot initiatives.[3] Participants also emphasised the importance of managing the social and labour dimensions of the transition. Establishing a national Labour and Community Transition Framework would help address workforce impacts and regional adjustment, while better integration of finance and data systems, supported by a transparent national greenhouse gas disclosure platform and strong quality assurance, would strengthen accountability and investor confidence.

Together, these proposals point to a growing recognition that effective delivery will depend not only on ambition, but on coordination, institutional capability, and social licence. Against this backdrop, Indonesia's energy transition has begun to move from high-level commitments toward a more defined, though still uneven, implementation architecture. Indonesia's energy transition has moved beyond high-level pledges toward a more detailed, though sometimes internally inconsistent, implementation architecture.

1 Australian Embassy of Indonesia, Launch of KINETIK, the Australia–Indonesia Climate and Infrastructure Partnership (Jakarta: Australian Government, 2024), https://indonesia.embassy.gov.au/jakt/MR24_025.html.

2 Indonesia Business Post, "Indonesia Signs MoU with Australia on Energy Transition Cooperation," 2024, https://indonesiabusinesspost.com/904/geopolitics/indonesia-signs-mou-with-australia-on-energy-transition-cooperation.

3 RMIT College of Business and Law, Future Ready Business Series: Indonesia Event (Melbourne: RMIT University, 2025).

Through the Just Energy Transition Partnership (JETP) and associated regulatory reforms, the Indonesian government has articulated an ambitious pathway for the power sector, including a substantial increase in renewable generation and a commitment to net-zero electricity by mid-century. Under the Golden Indonesia 2045 vision, the energy sector is expected to drive decarbonization, energy independence, and high economic growth. The 2025 National Energy Policy (KEN) presents two demand scenarios, of which only the high-growth scenario supports the 8 per cent growth target by 2029.[4] Presidential Regulation 112/2022 reinforced these signals by limiting most new coal development, introducing renewable incentives, and mandating the preparation of a coal retirement roadmap.[5] Together, these measures indicate stronger policy intent, but they stop short of resolving underlying delivery constraints.

Despite this progress, momentum remains uneven. Indonesia's Electricity Supply Business Plan (RUPTL) 2025–2034 signals a larger role for renewables in planned new capacity, yet still retains significant new coal and gas development through 2034.[6] Institute for Essential Services Reform (IESR) notes that coal still dominates Indonesia's electricity system—accounting for over 65 per cent of generation—and that Perusahaan Listrik Negara (PLN)'s RUPTL continues to add fossil capacity despite repeated net-zero and renewable commitments.[7] This coexistence of transition ambition and fossil fuel lock-in reflects the political economy of energy security, industrial policy, and affordability.[8] It also exposes persistent governance challenges, with responsibility for the JETP dispersed across multiple ministries and state-owned enterprises (SOEs), complicating coordination and accountability.

With policy intent increasingly articulated, Indonesia's ability to meet ambitious targets will depend on execution. Accelerating grid and transmission development, reforming coal pricing and subsidy settings, scaling renewable energy supported by storage and backup capacity, and unlocking private capital through bankable power purchase agreements and targeted de-risking mechanisms will be critical to translating ambition into delivery.

4 Institute for Essential Services Reform (IESR), Indonesia Energy Transition Outlook 2026: Golden Indonesia, Green Indonesia – Examining the Synergy of Indonesia's Energy Transition with National Economic Growth Ambitions (Jakarta: IESR, 2025).

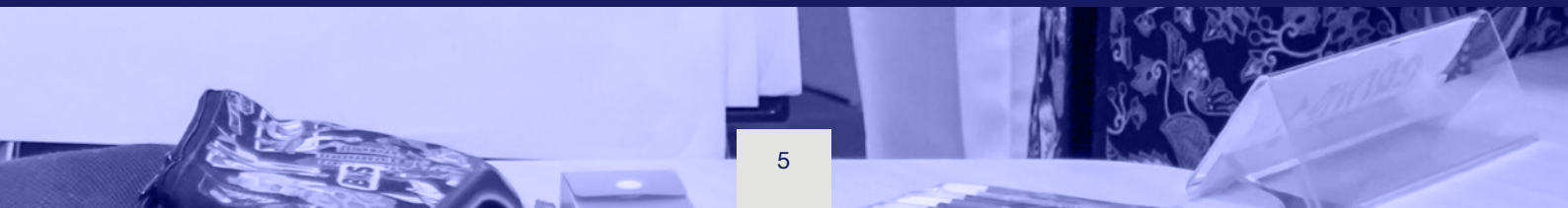
5 Government of Indonesia, Enhanced Nationally Determined Contribution (Jakarta: Government of Indonesia, 2022); Institute for Energy Economics and Financial Analysis (IEEFA), Indonesia's Just Energy Transition Partnership: Progress and Challenges (Cleveland, OH: IEEFA, 2023); Government of Indonesia, Presidential Regulation No. 112/2022 on the Acceleration of Renewable Energy Development for Electricity Supply.

6 Perusahaan Listrik Negara (PLN), Electricity Supply Business Plan (RUPTL) 2021–2030 (Jakarta: PLN, 2021).

7 Institute for Essential Services Reform (IESR), Indonesia Energy Transition Outlook 2026: Golden Indonesia, Green Indonesia – Examining the Synergy of Indonesia's Energy Transition with National Economic Growth Ambitions (Jakarta: IESR, 2025).

8 Benjamin K. Sovacool et al., "Climate Policy Implementation Gaps in Southeast Asia: Lessons for Indonesia," Energy Policy 156 (2021): 112418.

Policy signals and market response to Indonesia's energy transition (2017–2025)



Establishing the policy baseline

Indonesia's energy transition has unfolded through a series of overlapping frameworks, presidential regulations, and international commitments. While these efforts signal growing ambition, the overall trajectory remains contested and uneven. The National Energy General Plan (RUEN), issued under Presidential Regulation No. 22/2017, marked the first serious attempt to articulate a long-term roadmap for the energy transition. In doing so, RUEN established a formal policy baseline against which subsequent transition commitments would be measured.

In principle, RUEN was intended to align Indonesia's energy development with sustainability objectives and provide greater regulatory certainty for investors. In practice, however, the framework has been widely critiqued for its heavy reliance on bioenergy and geothermal projections that proved difficult to realise. Weak enforcement mechanisms further limited its effectiveness, allowing SOEs and regional governments to continue prioritising coal-based growth despite stated national targets.[9]

JETP ambition and alignment challenges

The adoption of the JETP in 2022, launched during Indonesia's G20 presidency, marked a shift in the energy transition from nationally defined targets toward international partnership and concessional finance. The initial JETP framework introduced, for the first time, explicit constraints on the power sector, committing Indonesia to cap emissions at 290 $MtCO_2e$ by 2030 and to accelerate renewable generation to approximately 34 per cent.[10] These commitments signalled stronger intent, but they also established a new benchmark against which delivery would be judged.

By mid-2023, the draft Comprehensive Investment and Policy Plan raised ambition further, projecting a 44 per cent renewable share by 2030. While this escalation was welcomed by international financiers, it immediately raised questions about feasibility. Analysts pointed to the enduring lock-in of coal-fired assets and the slow pace of utility-scale solar and wind deployment, with coal still accounting for over 65 per cent of electricity generation and around 80 GW of installed capacity, most of which is less than 15 years old.[11,12] Critics also highlighted internal inconsistencies between Indonesia's stated intention to reach net-zero emissions in the power sector by 2050 and the more ambitious 2040 coal phase-out timeline aligned with the Paris Agreement. Together, these tensions crystallised a central critique of the JETP: policy ambition had advanced more rapidly than market, infrastructure, and institutional readiness.

Regulatory reform and coal lock-in

Regulatory momentum continued with Presidential Regulation No. 112/2022, which sought to curb new coal development while accelerating renewable energy deployment. The regulation restricted new coal plants to those deemed pre-committed or "strategic", introduced tariff mechanisms and incentives for renewables, and authorised the development of a national coal phase-down roadmap.[13] On paper, these measures signalled a stronger commitment to steering the power sector away from unabated coal.

In practice, however, key ambiguities limited the regulation's impact. The definition of "strategic" projects, particularly in mining and mineral-processing sectors, remained sufficiently broad to permit continued coal expansion under the banner of industrial policy. This tension has been most evident in the government's decision to retain coal power as the backbone of the nickel-processing industry, contributing to the industrial sector's emissions rising to over 480 $MtCO_2e$ in 2024, with coal accounting for around 59 per cent of industrial energy demand.[14] Framed as essential to securing Indonesia's role in the global electric vehicle supply chain, coal power has been retained as the backbone of downstream mineral processing. Rather than marking a decisive break with coal, PR 112/2022 reflects a pragmatic balancing act in which economic sovereignty and downstream industrialisation continue to compete with, and at times outweigh, decarbonisation timelines.[15]

9 Benjamin K. Sovacool et al., "Climate Policy Implementation Gaps in Southeast Asia: Lessons for Indonesia," Energy Policy 156 (2021): 112418.

10 Institute for Energy Economics and Financial Analysis (IEEFA), Indonesia's Just Energy Transition Partnership: Progress and Challenges (Cleveland, OH: IEEFA, 2023).

11 Institute for Energy Economics and Financial Analysis (IEEFA), Indonesia's Just Energy Transition Partnership: Progress and Challenges (Cleveland, OH: IEEFA, 2023); International Energy Agency (IEA), Indonesia Energy Profile (Paris: IEA, 2023).

12 Institute for Essential Services Reform (IESR), Indonesia Energy Transition Outlook 2026: Golden Indonesia, Green Indonesia – Examining the Synergy of Indonesia's Energy Transition with National Economic Growth Ambitions (Jakarta: IESR, 2025).

13 Institute for Energy Economics and Financial Analysis (IEEFA), Indonesia's Just Energy Transition Partnership: Progress and Challenges (Cleveland, OH: IEEFA, 2023).

14 Institute for Essential Services Reform (IESR), Indonesia Energy Transition Outlook 2026: Golden Indonesia, Green Indonesia – Examining the Synergy of Indonesia's Energy Transition with National Economic Growth Ambitions (Jakarta: IESR, 2025).

15 Benjamin K. Sovacool et al., "Climate Policy Implementation Gaps in Southeast Asia: Lessons for Indonesia," Energy Policy 156 (2021): 112418.

Power planning and institutional fragmentation

Recent power system planning adds another layer of complexity to Indonesia's energy transition. RUPTL 2025–2034 has been promoted by the government as the "greenest" to date, citing a higher share of renewables in planned new capacity. Official narratives emphasise expanded investment in solar, hydro, and geothermal generation, positioning the plan as a potential inflection point in Indonesia's energy mix and a key delivery mechanism for JETP commitments.[16]

Independent assessments, however, present a more cautious view. Analysis suggests the RUPTL still includes approximately 16.6 GW of new coal and gas capacity. If realised, this additional fossil capacity would offset a significant share of planned renewable additions and could result in higher fossil-based generation by 2030 than in earlier planning cycles.[17] This inconsistency risks undermining the credibility of the JETP and has raised concerns among financiers and civil society about the government's willingness to prioritise decarbonisation over entrenched coal interests.

More broadly, the RUPTL debate highlights a persistent institutional challenge. Energy planning in Indonesia remains fragmented, shaped not only by the Ministry of Energy and Mineral Resources but also by the Ministry of State-Owned Enterprises and Perusahaan Listrik Negara (PLN), the state-owned electricity utility. PLN's financial position and risk appetite continue to exert significant influence over investment decisions, complicating efforts to align national transition ambitions with system planning and capital allocation.[18]

Structural constraints in the political economy of energy

At the macro level, coal continues to dominate Indonesia's energy system and political economy. It still accounts for roughly two-thirds of electricity generation and is viewed by the government as essential for ensuring affordable power and supporting industrial development. The link between coal and the nickel-processing boom illustrates this dilemma. By positioning itself as a global hub for electric vehicle battery materials, Indonesia has tied its industrial competitiveness to energy-intensive processes that remain overwhelmingly coal-powered.

This dynamic creates a transition "trilemma" encompassing energy security, affordability, and sustainability. Efforts to integrate higher levels of variable renewable energy face persistent barriers, including grid constraints, subsidy distortions, and the absence of clear mechanisms to retire existing coal plants without destabilising PLN's financial position. This is marked by low profit margins and limited returns on grid investments, which restricts its ability to fund the USD 35 billion in transmission and distribution upgrades needed to support demand growth and renewable integration.[19] These constraints expose the gap between Indonesia's transition rhetoric and its implementation capacity, underscoring the need to unlock the scale of investment envisioned by the International Energy Agency's net-zero pathways.

A contested transition landscape

What emerges is not a linear story of progress but a contested policy landscape shaped by ambition and pragmatic trade-offs. Indonesia has articulated ambitions that point toward a cleaner energy future. Yet these advances remain constrained by continued reliance on coal, industrial policy priorities, and institutional limitations. The resulting uncertainty risks slowing the transition at a time when global expectations for accelerated decarbonisation are intensifying.

16 Perusahaan Listrik Negara (PLN), Electricity Supply Business Plan (RUPTL) 2021–2030 (Jakarta: PLN, 2021).

17 Institute for Energy Economics and Financial Analysis (IEEFA), Indonesia's Just Energy Transition Partnership: Progress and Challenges (Cleveland, OH: IEEFA, 2023).

18 Benjamin K. Sovacool et al., "Climate Policy Implementation Gaps in Southeast Asia: Lessons for Indonesia," Energy Policy 156 (2021): 112418.

19 Institute for Essential Services Reform (IESR), Indonesia Energy Transition Outlook 2026: Golden Indonesia, Green Indonesia – Examining the Synergy of Indonesia's Energy Transition with National Economic Growth Ambitions (Jakarta: IESR, 2025).

Targets, ambition and delivery: Indonesia in comparative perspective

Indonesia's energy transition objectives are often framed in terms of "catching up" with international peers, yet the country's targets remain distinctive in both their structure and underlying political economy. The evidence suggests that ambition is no longer the primary constraint. Indonesia has articulated increasingly bold targets and secured international partnerships to support them. The challenge now lies in execution.

Persistent misalignment between targets, planning instruments, institutional responsibilities, and financing frameworks risks eroding policy credibility and slowing delivery. For instance, fossil fuel subsidies are projected to reach IDR 1,023 trillion between 2022–2026, while only 9 per cent of the energy security budget in the latest National Energy Policy is allocated to renewable energy development.[20] Comparative experience shows that rapid progress is possible, but only where market design, grid investment, and governance structures are sufficiently aligned. For Indonesia, the decisive question is therefore not whether targets can be raised further, but whether the transition architecture can be made coherent enough to deliver at scale.

At the core of Indonesia's strategy sits the RUEN target to achieve a 23 per cent renewable share in the primary energy mix by 2025, supplemented by the more ambitious JETP commitment to reach a 44 per cent renewable share in the power mix by 2030. These objectives sit alongside Indonesia's broader pledge to achieve net-zero emissions by 2060, or earlier, with international support. Taken together, they signal rising ambition. In practice, however, a persistent gap remains between headline targets and the policy instruments, market reforms, and financing mechanisms required to deliver them.[21]

A comparative glance at Southeast Asia reveals that Indonesia is not alone in facing this tension. Vietnam has achieved rapid scale-up of renewable energy, particularly in solar energy, with installed capacity rising from less than 100 MW in 2015 to more than 16 GW by 2021. While this expansion demonstrates the impact of strong policy incentives, it has also exposed grid-balancing challenges and the limits of deployment driven primarily by feed-in tariffs without coordinated network investment. Thailand has followed a more incremental pathway, embedding renewable targets within its Alternative Energy Development Plan and Energy Efficiency Plan, which together aim for a 30 per cent renewable share by 2037. Malaysia occupies a middle position, targeting 31 per cent renewable capacity by 2025 and supporting deployment through competitive tenders and gradual market liberalisation.[22]

Australia provides a contrasting reference point. Unlike most Southeast Asian economies, Australia combines abundant solar and wind resources with a largely liberalised electricity market that enables rapid private-sector investment. Renewable generation now accounts for more than 30 per cent of the national electricity supply, with some jurisdictions, such as South Australia, periodically operating on 100 per cent renewable generation under favourable conditions. Market institutions such as the National Electricity Market (NEM) and state-level Renewable Energy Zones (REZs) illustrate how transmission planning and renewable deployment can be coordinated to support system reliability. For Indonesia, the Australian experience highlights both the scale of opportunity associated with renewable abundance and the central importance of grid reform and market design in translating targets into sustained delivery.[23]

20 Institute for Essential Services Reform (IESR), Indonesia Energy Transition Outlook 2026: Golden Indonesia, Green Indonesia – Examining the Synergy of Indonesia's Energy Transition with National Economic Growth Ambitions (Jakarta: IESR, 2025).

21 Government of Indonesia, Enhanced Nationally Determined Contribution (Jakarta: Government of Indonesia, 2022); International Energy Agency (IEA), Indonesia Energy Profile (Paris: IEA, 2023); Institute for Energy Economics and Financial Analysis (IEEFA), Indonesia's Just Energy Transition Partnership: Progress and Challenges (Cleveland, OH: IEEFA, 2023).

22 International Energy Agency (IEA), World Energy Outlook 2022 (Paris: IEA, 2022); Asia Pacific Energy Research Centre (APERC), Thailand Energy Overview (Tokyo: APERC, 2021).

23 James Horne and Adam MacDonald-Smith, "Australia's Renewable Transition and Regional Impacts," Energy Policy 163 (2022): 112–119; International Energy Agency (IEA), World Energy Outlook 2022 (Paris: IEA, 2022).

The following table provides a comparative snapshot of Indonesia's energy transition targets and how its progress compares across selected countries.

Country	Renewable Energy Target	Net-Zero Timeline	Key Policy Instruments	Current Status (2024)
Indonesia	23% primary energy mix by 2025; 44% power generation by 2030	2060 (or earlier)	RUEN, PR 112/2022, JETP, RUPTL	~13–14% renewables in primary energy; ~12 GW coal under construction
Vietnam	~32% renewables by 2030 (Power Development Plan VIII)	2050	FiTs (earlier), PDP VIII, JETP (2022)	>20% renewables in power capacity; rapid solar uptake
Thailand	30% renewables in final energy consumption by 2037	2050	AEDP, Energy Efficiency Plan, carbon pricing pilots	~15% renewables; slow but steady growth
Malaysia	31% renewables in installed capacity by 2025; 40% by 2035	2050	Large-Scale Solar (LSS) tenders, National Energy Transition Roadmap (2023)	~25% renewables in capacity
Australia	82% renewables in electricity by 2030 (federal target); several states aim for 100%	2050	NEM reforms, REZs, state-level targets	>30% renewables in electricity; South Australia ~70% average

This comparison highlights two important insights. First, Indonesia's targets, though ambitious in their framing, are modest when compared with peers like Vietnam or Australia in terms of near-term penetration rates. Second, while Southeast Asian neighbours face similar institutional and grid-related barriers, Indonesia's reliance on coal as an industrial policy tool makes its transition uniquely complex. Unlike Malaysia or Thailand, where renewables are increasingly positioned as drivers of industrial upgrading, Indonesia continues to see coal as indispensable to its developmental state, particularly for powering mineral processing and manufacturing. This divergence reflects a deeper political economy reality: in Indonesia, the energy transition is less a purely technical or environmental issue than a negotiation over sovereignty, industrial competitiveness, and rent redistribution. As a result, progress will depend on whether transition frameworks can accommodate these political and industrial constraints without undermining credibility or delivery.

Lessons learned from comparative experiences

Comparative experience suggests that Indonesia's energy transition will be shaped less by the scale of its targets than by how effectively it manages the institutional, infrastructural, and political economy constraints that sit beneath them. International examples do not offer a single model to replicate, but they do clarify the trade-offs embedded in different transition pathways. For Indonesia, the relevance of these experiences lies in identifying which design principles can be adapted to its own decentralised governance structure, coal-dependent industrial strategy, and fragmented power system.

Lesson 1

Policy certainty is more important than policy ambition.

Vietnam's renewable energy surge in the late 2010s was catalysed by generous feed-in tariffs (FiTs) for solar and wind. While effective in accelerating deployment, this growth model proved fragile. The absence of a long-term integration plan led to grid congestion, widespread curtailment, and renewed investor uncertainty once FiTs expired.

For Indonesia, the message is clear. Ambitious targets and incentive schemes can drive short-term capacity growth, but without stable and predictable policy frameworks, momentum is difficult to sustain.

In particular, uncertainty around power purchase agreements, land acquisition, and transmission access has been repeatedly cited by investors as a barrier to project development. Ensuring regulatory predictability, even with more moderate incentives, may therefore be more effective in accelerating Indonesia's transition than episodic bursts of policy ambition.

Lesson 2

Grid modernisation is the backbone of transition

Australia's experience illustrates that renewable penetration is ultimately constrained by the strength and flexibility of the electricity grid. The development of REZs, which coordinate generation and transmission planning, has helped reduce congestion risk and support system stability as renewable capacity expands.

By contrast, Vietnam's solar boom encountered severe transmission bottlenecks, while Thailand's progress has been tempered by conservative grid operators concerned about intermittency. Indonesia faces an even more acute challenge. Its electricity system is geographically fragmented across thousands of islands, with overcapacity concentrated in the Java–Bali system and persistent supply gaps in outer regions. Lessons from Australia suggest that Indonesia's transition cannot advance at scale without a parallel focus on transmission planning, inter-island grid strengthening, and grid management capability. Without this foundation, renewable deployment risks remaining confined to isolated pockets rather than forming a resilient national system.

Lesson 3

Political economy shapes transition trajectories

Malaysia offers a useful illustration of how political will and institutional design interact in shaping energy transition outcomes. The government's Large-Scale Solar programme has relied on competitive tenders to promote cost efficiency while signalling a stable, longer-term policy commitment. This approach has been supported by Malaysia's relatively centralised governance structure, which has enabled smoother coordination across agencies, utilities, and regulators.

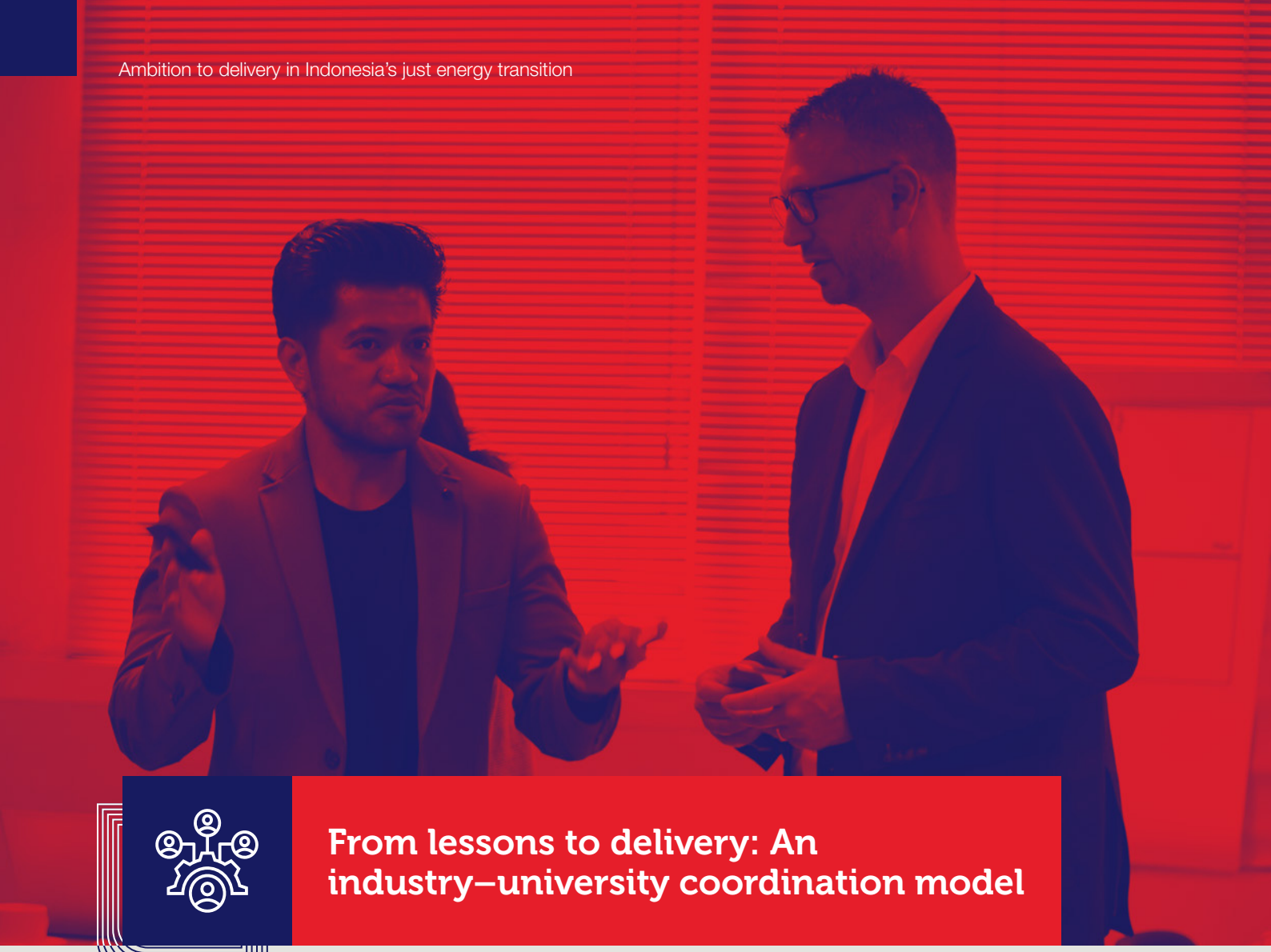
Indonesia faces a more complex set of political economy constraints. Its decentralised governance system, entrenched coal interests, and the dominant role of PLN create a more contested transition environment. The lesson is not that Indonesia should adopt tenders or subsidies in isolation, but that political economy constraints must be explicitly acknowledged in policy design. In particular, coal phase-down will require more than financial mechanisms; it will depend on negotiated transition pathways for subnational governments that remain reliant on coal royalties. A purely technocratic approach risks underestimating the distributive conflicts that shape reform outcomes.

Lesson 4

Industrial policy can align, or undermine, energy transition

Comparative experience also highlights the close relationship between industrial policy and energy transition pathways. Australia and Vietnam illustrate two contrasting approaches to linking decarbonisation with industrial upgrading. Australia seeks to leverage its renewable energy resources to position itself as a supplier of critical minerals and green hydrogen, while Vietnam has used large-scale solar deployment to attract foreign investment in manufacturing.

Indonesia faces a more difficult trade-off. Its industrial policy, particularly the downstream processing of nickel and bauxite for electric vehicle batteries and aluminium, remains heavily dependent on coal-fired captive power. This reliance undermines the credibility of Indonesia's transition narrative, particularly for global investors increasingly focused on low-emissions supply chains. The implication is that industrial competitiveness and energy transition cannot be treated as separate agendas. If coal continues to underpin downstream industrialisation, Indonesia risks eroding the export competitiveness it seeks to build. By contrast, positioning renewable energy as an integral component of its industrial strategy could support both decarbonisation objectives and longer-term economic value creation.



From lessons to delivery: An industry–university coordination model

The RMIT–BINUS Indonesia Just Energy Transition Industry Roundtable

Comparative experience highlights that Indonesia's energy transition challenge lies less in ambition than in alignment across institutions, infrastructure, and political economy constraints. Responding to these lessons requires mechanisms that can bridge policy intent and on-the-ground delivery. One such mechanism is cross-sector coordination that brings government, industry, and universities into structured collaboration around shared transition challenges.

On 23 October 2025, an Indonesian Just Energy Transition Industry Roundtable, co-led by RMIT University and BINUS Center of Excellence in Sustainability, convened leaders from industry, government, community organisations, and academia. The roundtable was designed as a practical forum to align national transition ambitions with innovation, investment, and workforce development needs. Discussions focused on shared challenges, including renewable integration, transition finance, skills development, and equitable access, while also exploring opportunities to translate dialogue into joint outputs such as policy briefs, strategic roadmaps, and funding-ready project proposals.

Across sessions, participants engaged with the energy transition "trilemma" of security, affordability, and sustainability, with an emphasis on identifying collaborative pathways that could support both economic competitiveness and social outcomes.

Key insights from the roundtable

Fragmented governance remains a binding constraint.

Participants noted that responsibilities for the JET remain dispersed across multiple ministries, regulators, and SOEs, creating overlaps and coordination gaps. There was strong support for establishing a unified coordinating mechanism, such as a JET Collaboration Council located within a central ministry or the presidential office, to align strategy, standardise data systems, and streamline access to transition finance.

Universities are an underutilised delivery partner.

While universities play a limited role in current transition governance, participants highlighted their potential contribution to policy co-design, applied research, metrics development, and professional training. Embedding universities more systematically within the transition architecture was seen as critical to translating policy commitments into measurable outcomes, particularly through reskilling and workforce development aligned with emerging energy sectors.

A tiered collaboration model can support scale and focus

The roundtable identified a practical three-tier collaboration model. This includes scalable engagement (such as guest lectures, advisory roles, and micro-credentials), strategic investment (including co-designed degree programs, work-integrated learning, and applied research on transition finance), and selective initiatives (such as demonstration projects and carbon market pilots). This structure allows participation at different levels of commitment while maintaining strategic coherence.

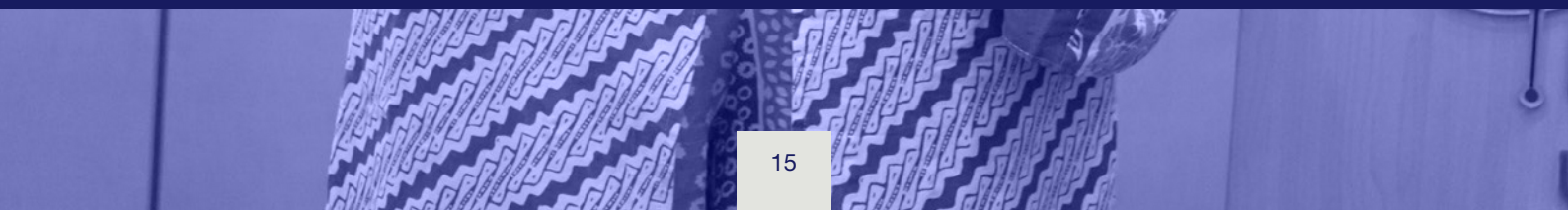
Labour and community impacts require dedicated frameworks.

Participants stressed the importance of a national Labour and Community Transition Framework to manage employment and social impacts. Priority actions include skills mapping, reskilling and upskilling pathways, and community impact assessments, with potential financing drawn from carbon pricing revenues and JETP-linked funding.

Credible progress depends on aligned finance and data systems.

Finally, stakeholders emphasised that alignment between finance and data is essential for credibility. Calls were made for a transparent, integrated national greenhouse gas data and disclosure platform to support evidence-based decision-making. Universities and professional bodies were identified as key contributors in developing methodologies, setting standards, and providing quality assurance for transition-related reporting.

Knowledge gaps constraining transition delivery



While policy ambition and cross-sector engagement around Indonesia's energy transition are increasing, persistent knowledge gaps continue to constrain effective delivery. These gaps sit across the "triple helix" of government, industry, and academia, limiting the co-design of policies and projects that can simultaneously advance decarbonisation, industrial competitiveness, and social inclusion. Addressing them is not a peripheral concern; it is central to translating transition commitments into investable, implementable outcomes. Drawing on the policy analysis and the outcomes of an industry roundtable with key stakeholders, the following recommendations are put forward.

Recommendation 1

Closing the Technology-Policy Alignment Gap to Accelerate Implementation

Knowledge Gap: Without coordinated mechanisms for piloting and de-risking emerging technologies, such as testbeds, innovation funds, and public–private demonstration projects, Indonesia risks reinforcing technological lock-in and missing opportunities associated with global shifts toward renewable energy and green fuels.[24]

Academic research and international policy debates increasingly emphasise emerging technologies such as hydrogen, carbon capture and storage, and smart grid systems. In Indonesia, however, policy and regulatory frameworks have been slow to create pathways for testing and scaling these technologies. Industry actors, particularly SOEs such as PLN and Pertamina, operate in risk-averse environments where investment in unproven technologies carries significant political and financial exposure. As a result, a "valley of death" persists in which academic insights fail to progress beyond pilots, while industrial investment remains concentrated on incremental improvements to existing coal-based infrastructure. Indonesia should establish coordinated mechanisms to pilot, test, and de-risk emerging technologies.

Recommendation 2

Strengthening Financing Mechanisms and Risk-Sharing Arrangements

Knowledge Gap: In the absence of structured risk-sharing mechanisms and clearer investment frameworks, Indonesia's transition is likely to remain dependent on public finance and donor support, constraining scalability and private capital mobilisation.[25]

Indonesia's transition agenda is supported by growing international commitments, including concessional finance and climate funding. Yet private-sector participation remains cautious, reflecting uncertainty about risk allocation and investment rules. While academic literature highlights blended finance and green bonds as potential enablers, industry stakeholders often lack the capacity or incentives to operationalise these instruments. Policymakers, meanwhile, have tended to rely on sovereign-backed guarantees, limiting innovation in risk-sharing arrangements. This disconnect between financial concepts, regulatory clarity, and commercial risk appetite continues to impede the translation of funding commitments into bankable projects. Indonesia should strengthen structured financing and risk-sharing frameworks to better mobilise private capital and reduce over-reliance on public and donor funding.

24 International Energy Agency (IEA), World Energy Outlook 2022 (Paris: IEA, 2022).

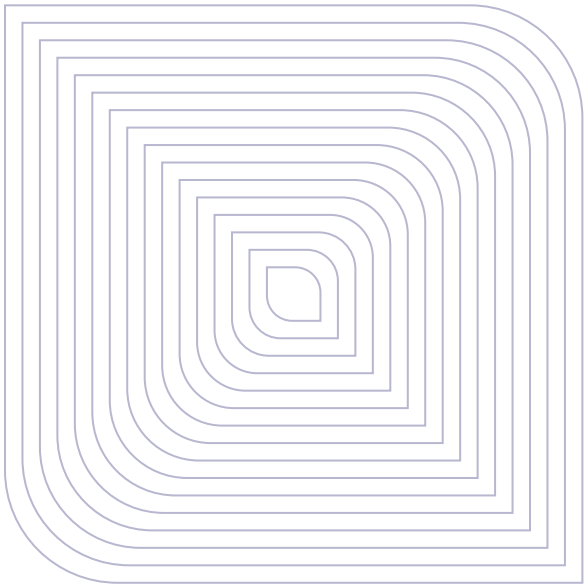
25 Institute for Energy Economics and Financial Analysis (IEEFA), Indonesia's Just Energy Transition Partnership: Progress and Challenges (Cleveland, OH: IEEFA, 2023).

Recommendation 3

Bridging Regional and subnational governance disconnects

Knowledge Gap: Without bridging the gap between national transition strategies and local political economy realities, projects are likely to face delays related to land acquisition, permitting, and social acceptance, undermining delivery timelines and investor confidence.[26]

Indonesia's decentralised governance system presents additional challenges for transition delivery, particularly in regions that depend on coal for fiscal revenues and employment. Academic work has underscored the importance of just transition frameworks, yet these insights are rarely embedded in subnational policy or project design. Industry-led projects often encounter local resistance due to limited consultation, weak benefit-sharing arrangements, or unclear labour transition pathways. National strategies, while ambitious, frequently lack mechanisms that address provincial fiscal constraints or workforce impacts. National transition strategies, thus, should be better aligned with regional and subnational political economy realities.



Recommendation 4

Addressing Data Gaps and Transparency Deficits to Improve Accountability

Knowledge Gap: Without robust, transparent, and standardised data systems, Indonesia risks eroding credibility with international partners and investors, while also limiting its ability to track progress toward Indonesia's nationally determined contribution and net-zero commitments.[27]

Reliable, consistent data on emissions, energy use, and project performance remains limited and fragmented. Academic researchers often lack access to granular datasets, while industry actors may treat data as commercially sensitive. Government agencies, for their part, lack integrated systems to harmonise, verify, and disclose data across sectors. This opacity undermines accountability and evidence-based policymaking.
In practice, divergent estimates of coal plant lifespans complicate international negotiations on transition finance, while inconsistent assessments of renewable potential obscure project prioritisation. Indonesia should prioritise the development of robust, transparent, and standardised data systems to strengthen accountability and support evidence-based policymaking.

26 Benjamin K. Sovacool et al., "Climate Policy Implementation Gaps in Southeast Asia: Lessons for Indonesia," Energy Policy 156 (2021): 112418.

27 Government of Indonesia, Enhanced Nationally Determined Contribution (Jakarta: Government of Indonesia, 2022); International Energy Agency (IEA), Indonesia Energy Profile (Paris: IEA, 2023).

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Indonesia

- **RUEN** – *Rencana Umum Energi Nasional* (National Energy Policy / National Energy Plan)
- **PR 112/2022** – *Presidential Regulation No. 112 of 2022* on the Acceleration of Renewable Energy Development for Electricity Supply
- **JETP** – *Just Energy Transition Partnership*
- **RUPTL** – *Rencana Usaha Penyediaan Tenaga Listrik* (Electricity Supply Business Plan)

Vietnam

- **FiTs** – *Feed-in Tariffs*
- **PDP VIII** – *Power Development Plan VIII*
- **JETP** – *Just Energy Transition Partnership* (agreed in 2022)

Thailand

- **AEDP** – *Alternative Energy Development Plan*
- **Energy Efficiency Plan** – *Energy Efficiency Development Plan (EEDP)*
- **Carbon pricing pilots** – Pilot schemes for emissions trading or carbon pricing mechanisms

Malaysia

- **LSS** – *Large-Scale Solar* (competitive solar procurement/tender programme)
- **NETR** – *National Energy Transition Roadmap* (released in 2023)

Australia

- **NEM** – *National Electricity Market*
- **REZs** – *Renewable Energy Zones*

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