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Dynamic capabilities and the governance of energy resilience: Indonesia's adaptive transition under the RUPTL 2025–2034

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ABSTRACT

This study analyzes how Indonesia governs energy resilience under the RUPTL 2025–2034 regulation during the country's adaptive transition using the dynamic capabilities approach. It investigates the operationalization of the sensing, seizing, and transforming capabilities, which are the flexible portion of the governance policy, organizational, and technological pillars in the adaptive transitions framework toward the envisioned sustainable energy future. Using strategic management and international case studies on energy transitions, this work highlights how Indonesia adjusts the adaptable and competitive components of its energy systems to respond to shifts in the global energy market. The dynamic capabilities and governance flexibility construct links energy resilience security and environmental sustainability, providing emerging economies valuable insights. Finally, the study emphasizes transition complexity and offers energy policy and energy transition managers concrete solutions.

INTRODUCTION

The global changes being experienced by the energy sector have been driven by a global focus on climate change, advancements in technologies in renewable energy, and more robust global connections to the decarbonization of economies. These changes have impacted all parts of the energy sector and the systems used to produce, distribute, and consume energy. In the example of Indonesia, an emerging economy, the energy system draft RUPTL 2025–2034 plan describes how to meet the challenges of energy demand, economic growth, and the goal of a resilient and low-carbon energy future. Indonesia's draft RUPTL 2025–2034 plan describes how to meet the challenges of energy demand, economic growth, and the goal of a resilient and low-carbon energy future. Integration of smart grid technologies, right-sizing and optimizing obsolete fossil grid infrastructure, and prioritizing affordable access to energy for all Indonesians shows how Indonesia is working to address the many and complex facets of this energy transition.

The unpredictable governance transition is dealt with strategically using flexibility and creativity. This is where the dynamic capabilities theory within strategic management excels. The theory was initially developed to understand how firms cope and maintain their competitive advantage in adapting to the changes in their business environments (Augier & Teece, 2009). Dynamic capabilities outline a firm's potential to identify environmental changes, seize opportunities by deploying and reallocating resources to capture opportunities, and finally, transforming operations and institutions to maintain competitive advantage and or business resiliency in the long run (Helfat & Peteraf, 2015). The national energy governance dynamic will capture the flexibility, reconfiguration, and strategic management that Indonesian energy transition requires.

RUPTL, Indonesia's long-term electricity supply plan, combines sensing, seizing, and transforming capabilities synergistically. Through systematic scanning of the environment, RUPTL foresight identifies technology and climate-related risks that shape policies and investment choices. Seizing opportunities provide strategic pathways such as developing renewable energy risk projects and the modernization of infrastructure, which also supply energy in the hybrid systems the RUPTL guides. Transformed governance processes in the RUPTL alter institutional constructs and decentralized energy governance frameworks to include flexible responsive frameworks for learning and adaption, and self-sustaining systems to govern energy RUPTL the NL gov. RUPTL enables Indonesia to develop an energy system that not only robustly responds to and adapts to climate, economic, and energy market instability, but also responds to climate and shifts as climate change crises worsen and accelerate.

Applying dynamic capabilities theory to governance captures the need for continuous strategic renewal in which iterative sensing, seizing, and transforming sets the organizational and institutional agility to tackle unprecedented uncertainty. In the case of Indonesia, this entails the expansion of institutional knowledge networks, the development of cooperative innovative ecosystem and legal-operational frameworks to be renewed consistently with the changing post energy frameworks. Given the increasing volatility and complexity of the international energy world, Indonesia has a crucial role to play for emerging economies in strategically structuring governance to achieve energy sustainability. This paper aims to address these issues, looking at the microfoundations and the more tangible dimensions of dynamic capabilities in the adaptive energy governance and transition in Indonesia driven by the energy governance RUPTL.

Methodology

This study examines the adaptive energy governance in Indonesia viewed as a dynamic capability using qualitative case study methodology. For qualitative research, the analysis of Indonesia's transitional policies within the framework of the 2025-2034 RUPTL focuses on strategic processes, institutional relationships, adaptive frameworks, and contextual depth (as opposed to a numerical analysis) (Creswell & Creswell, n.d.). This design emphasizes interpretation capturing the dynamic capability of sensing, seizing, and transforming as overriding the nation's governance and long-term energy resilience sustainability (Merriam, S. B, 2016).

Research data was acquired and collected from secondary qualitative sources. RUPTL 2025-2034, policy documents, government reports published by ESDM and PLN, and various other reports and integrated analyses performed by global institutions, particularly the International Energy Agency (IEA) and the Asian Development Bank (ADB) provided the primary data. This was supplemented with academic sources on the literature of dynamic capabilities, adaptive governance, and energy transitions. This literature review was meant to provide material for a comparative study (Hermundsdottir et al., 2024). International case studies, particularly Vietnam's renewable governance reforms, as well as the Nordic countries energy transition models, provided contextual validation and evidence for the study (Kortus & Gutmann, 2023).

Along with the qualitative case study approach, this research also uses bibliometric analysis to help comprehend the literature on energy governance and transitions in Indonesia. VOSViewer and other software provide the bibliometric method the means to visualize and map citation networks and keyword co-occurrences and map author collaborations for energy governance scholarship. Such analysis speaks to research trends and identifies key research themes, scholars, and/or institutions in a given field. For the specified period, relevant data for the bibliometric research were obtained from international scientific publication databases. This effort contributed to the contextualization of the literature review and the comparative analysis framework of this study.

For the analysis, I employed thematic content analysis as a qualitative method to uncover and analyze the governance facets corresponding to the triadic framework of dynamic capabilities (Braun & Clarke, 2006). Relevant RUPTL data and documents were allocated to code themes pertaining to sensing (environmental scanning and policy foresight), seizing (energy investments and innovation programs), and transforming (institutional restructuring and regulatory modernization). Thematic cross-referencing through triangulation drew on disparate data and theory within the same governance stream, strengthening the analysis and interpretation through the addition of multiple dimensions and evidence and theory (Patton, 2015).

This study relies solely on qualitative data comprising legislative documents, strategic policy reports, and expert analyses. Because of the interpretive nature of this data, it captures the cognitive, institutional, and behavioral dimensions of reasoning that a quantitative analysis of legislation and regulatory instruments would fail to provide (Flick, 2022). The data's qualitative aspect demonstrates adherence to the constructivist paradigm. The lack of prediction or measurement emphasizes the theory-building focus on the observed dynamics within governance rather than on the instruments of governance (Yin, 2018).

Overall, the study employs the interpretivist paradigm, and thematic analysis, situated within the qualitative case study, accounts for Indonesia's adaptive transition

during RUPTL 2025–2034. This particular alignment of methodological design with empirical data on dynamic capabilities within the strategic management theory of the discipline serves to advance the theory by providing and aiding with a holistic account of its application to national energy governance.

RESULTS AND DISCUSSION

Dynamic Capabilities in Strategic Management

Dynamic capabilities theory seeks to further expand the resource-based view (RBV) of the firm to gain insight into the sustaining of competitive advantage in intricate and constantly shifting environments (Augier & Teece, 2009). Although RBV provides information about the advantages of a firm's resources and capabilities, it lacks the ability to describe the mechanisms of change, renewal, and resource adaptation to rapid technological change and fluctuating market environments. Dynamic capabilities fill this void in the theory by focusing on the transformations and movement the firm utilizes to integrate, develop, and reconfigure its internal and external harnessed competences as a response to varying conditions (Augier & Teece, 2009). The theory identifies and elaborates on three primary capabilities: the ability to sense and identity opportunities and threats, the ability to seize and opportunistically rationally allocate necessary resources and opportunistically important tiered decision resources, and the ability and willingness to transform to the dynamism of organizational intangibles (Eisenhardt & Martin, 2000).

Sensing entails the continuous monitoring and interpreting of market signals and changes in technology and regulations, hence, firms must implement appropriate routines and erect the cognitive pillars necessary for the early detection of potential threats and opportunities (Augier & Teece, 2009). Seizing entails the appropriation of resources to fully support the seized opportunities, which may include the new technologies, the innovations of business models, and the coordinating which crosses the bounds of several organizational units (Pavlou & El Sawy, 2011). In contrast, Transforming involves reconfiguring organizational structures, organizational capabilities, and processes in order to achieve a sustainable adaptation to the prevailing conditions and often involves reordering processes and dismantling obsolete routines to build new capacities (Helfat & Peteraf, 2015).

The microfoundations of these dynamic capabilities include managerial cognition, decision making, organizational learning, and adaptive routines (Helfat & Peteraf, 2015). Organizational learning mechanisms capture the requisite knowledge and diffuse it to get the system to adjust (Zollo & Winter, 2002). Adaptive routines allow organizational entities to be flexible and responsive by embedding systems which alter behaviors based on signals from the environment (Eisenhardt & Martin, 2000).

In response to the technological complexities and dynamically evolving legal frameworks, the significance of dynamic capabilities rises in the energy industry. Organizations with sophisticated sensing capabilities. Organizations with sophisticated sensing capabilities potentially capture value from resource cycles, emerging technologies in renewables, and the practices of making sustainability more efficient. The capabilities of value capture and process streamlining obtain investments and strategic alliances to scale innovations and boost productivity. Transformational capabilities, as described by Prahalad and Hamel (1990), are the most crucial in the energy sector as the firms and regulators adjust and reconfigure policies, structures, and

business models to contain the impacts of climate change, volatility, and multiplicity of diverse demands on business models (Prahalad & Hamel, n.d.).

In the context of empirical studies, the 'dynamic capabilities' construct has expanded to include national and sectoral levels, and in particular the interwoven and orchestrated construction of multi-stakeholder partnerships and policy networks needed for systemic transitions in energy (Eurico Soares De Noronha et al., 2024). Hence, the theory of dynamic capabilities provides unique perspectives on the role of strategic agility and adaptive governance in successful energy transitions, thus helping us to analyze Indonesia's RUPTL 2025–2034 and its adaptive approaches to transitioning toward energy resilience and sustainability.

Sensing: Environmental Scanning and Foresight

Renewable energy in Indonesia (RUPTL) 2025–2034 highlights advanced multi-sensory competencies within dynamic capabilities theory, emphasizing the significance of Environmental Scanning and Foresight within the governance of national energy policies. National Monitoring Policy Real-time energy demand, climate risk, and technologies (policy) monitoring balance the demand and climate risk with continuous demand policies to manage or predict policy shifts. Perusahaan Listrik Negara's (PLN) and the Ministry of Energy and Mineral Resources (ESDM) have dedicated Horizon Scanning Teams. They focus on the value of emerging technologies and the macroeconomics of commodities and their volatility, geopolitical risks, and disruptions of global supply chains related to the energy infrastructure, investment, and risk mitigation (ESDM, 2025). This scanning and adaptive planning, EPS 2023 They build necessary mental models to deal with and constructively manage the uncertainty of scenarios to promote effective planning.

Sensing capabilities in Indonesia issue from the formalization of cross-domain knowledge networks. These networks include actors from the academy, industry, government, and civil society. Such collaborative networks enable efficiency in the flow of information and the joint evaluation of possibilities such as assessing the potential scalability of solar photovoltaic (PV) systems in various regions of Indonesia, new battery storage technologies, and contemporary tools for managing interconnected grids. Such knowledge-sensing collaborations fit closely with the microfoundations of dynamic capabilities, which include organizational learning routines, absorptive capacity, and managerial cognition as the elements driving the development of the sensing capability (Helfat & Peteraf, 2015). Having these systems help Indonesia within its formal structures to monitor and respond to weak signals in its energy ecosystem while upholding strategic defensiveness or flexibility.

Moreover, RUPTL uses innovative sensing and scenario modeling and forecasting. These flexible models allow various stakeholders to assess multiple energy supply and demand scenarios and consider uncertainties critical to the scenario development, including volatile fossil fuel prices, transitions in renewable technologies, and the ever-evolving demographic and economic structures that shape demand (Koirala et al., 2016). Adaptive, scenario-based planning that combines avoidance of path-dependent and lock-in risks, close off large infrastructure sectors, and flexible infrastructure, improves adaptive capacity. Hence, there is a stronger competitive edge in predicting the uncertain global and local market conditions. In Indonesia, scenario planning improves overall energy system sensing capabilities and advances its competitive position.

Influenced by dynamic changes in a variety of sectors, global energy transitions requires comprehensive environmental scanning and foresight, as seen in the case of the Energiewende in Germany. In Germany, continuous evaluation of policy frameworks, technological changes, and stakeholder reactions are essential for the dynamic re-calibration and realignment of strategies and regulations (Hoppmann et al., 2013). In a similar optative, the dynamic capabilities in energy-intensive industries underscore the importance of the sensing phase toward the identification of opportunities critical in the subsequent phase of adopting sustainable energy practices (Kortus & Gutmann, 2023). Hence, the sensing pillar of RUPTL in Indonesia exemplifies the articulation of dynamic capabilities in national policy, where the Indonesian governance system's identification and articulation of the technical, administrative, and institutional frameworks advanced Indonesia's positioning as a governance system that is both proactive and reactive.

Indonesia's environmental scanning and foresight functions embedded in RUPTL are comprehensive and synergistic. The RUPTL provisions in real-time data monitoring, formalized and coordinated knowledge networks, and disciplined foresight, notably enhance the system's capacity to detect critical external changes. In the context of complex and uncertain global energy markets, this system's dynamic capability is essential toward the transformation of the country's energy system and is fundamental to the country's resilience.

Seizing: Strategic Opportunity Mobilization

For Indonesia's Electricity Supply Business Plan (RUPTL) in 2025-2034, an interest-optimizing approach to manage resources toward the intended energy transition goals will be employed. The Initiatives will address the country's target 76% contribution to new electricity generation capacity from solar, hydro, geothermal, wind, and bioenergy by 2034 (ESDM, 2025). Profit-maximizing the government's steps to encourage the investments will target the construction of renewables energy infrastructure. In this aspect, the government will offer tax exemptions and license streamlining, and reduced import duties. These goals aim to reduce the hurdles that potential investors face. In this light, the anticipated investments to achieve the expected energy transition goals will be put in place.

The strategy includes additional green certifications. These will aid in differentiating clean energy offerings in the market. This is also in line with the strategy to conform with global investors and market aligning to sustainable investing practices. With the normalisation of sustainable practices, confidence will improve. Infrastructure improvements and the extension of renewables will seamlessly occur with the PPP model. This is because the PPP blends government aid, private funds, and the expertise to facilitate the extensibility of projects. An example of this is the Independent Power Producer (IPP) scheme, in which private entities increase the capacity of renewable energy generation. This illustrates the transformation of intangible institutional and technological capacity to physical infrastructure (Eisenhardt & Martin, 2000).

RUPTL's tariff regulations promotes demand-side management, which is crucial to negotiating and balancing energy loads. This is particularly useful for incorporating intermittent renewable energy resources into the grid. Renewables affect the grid's stability, and therefore, the governance surrounding their use must be flexible. Real-time dynamic energy pricing promotes demand to be shifted and reduced to mitigate energy wastage and address peak demand, which is essential to stabilise the

grid with intermittent renewable energy and the associated unreliability of the system (IEA, 2025).

In addition, the policy structure promotes regionally based innovation and pilot efforts suited to local geography and demographics, recognizing the differences among the many parts of the Indonesian archipelago. These local efforts promote the experimentation and localization of technology, something highly valued in adaptive energy governance, which embodies the agility and resilience of an organization (Eurico Soares De Noronha et al., 2024).

Under RUPTL, the governance structure promotes the active involvement of multiple stakeholders which fosters agreement and adds social legitimacy to energy governance. This stream of engagement defuses the tensions of policy implementation by the communities, industry, and political enterprises. The collaborative governance stream fits with the literature that states that dynamic capabilities come from ecosystem orchestration in which multiple actors deploy and harmonize disparate resources and aligned incentives to achieve a common goal (Eurico Soares De Noronha et al., 2024).

Strategic opportunity mobilization under Indonesia's RUPTL provides an illustration of the seizing dimension of dynamic capabilities. This is characterized by the conversion of strategic intent to action by means of participative governance, regulatory flexibility, local innovation, and the provision of targeted incentives. This innovation strengthens Indonesia's ability to fulfill its promise on sustainable development and carbon neutrality while capturing emerging opportunities in the energy sector.

Transforming: Institutional Renewal and Organizational Reconfiguration

Transforming capabilities under Indonesia's RUPTL 2025-2034 marks the integrated institutional and organizational efforts for the first time in the history of the modern Indonesian system energy system governance in Indonesia focused on system governance for the entire energ system for RUPTL 2025-2034, Restructuring operations of Perusahaan Listrik Negara (PLN), decentralization of approval for energy projects to the regions, and the adoption of digital technologies in the administration for the lowering of the transaction cost, and improving of the speed of decisions, the reduction of discretion of the administrative system, and for transparency of decision making (ESDM, 2025), Poland Energy governance. Enhancing the institutional system of low governance on the transition of the low carbon technology economy Indonesia is targeted toward integrated energy governance.

At the organizational level, PLN focuses on internal transformation on organizational of redefining the operational governance and value creation on the dynamic and responsive governance of PLN in energy system governance. The digitalization of the energy system digitally integrated energy systems, real time performance monitoring and control systems, PLN digital grid energy systems allows automation on application of energy control system to PLM energy system of performance monitoring and control metrics for responsive service delivery. The system of operational performance on energy system governance creates transparency and accountability, integration of the digital system rapid flow of information creation of the system dynamic decision. The rapid flow of information governance decision under digital systems is isolation systems for rapid developed (IEA, 2025).

The RUPTL's adopted communication, learning, and policy feedback mechanism tracks and documents the policy learning and feedback cycles that are

recursively adjusted through active stakeholder engagement and research evidence consolidation (IESR, 2025). The reinforcing iterative mechanics, which cultivate coherent adaptive capacity, resonate with Teece (2007) concept of "evolutionary fitness," meaning that organizations and institutions are subject to constant resource reconfiguration and process adjustments to meet the needs of a dynamic environment without losing the equilibrium of system-wide sustainability. The entire governance framework paradoxically composite feedback systems that enables "responsive and responsible governance," meaning that governance systems are capable of self-correcting and adjusting through the coherent integration of feedback inputs at each administrative level.

The second transformational pillar of the RUPTL framework is the formation of human capital through targeted capacity-building initiatives. These include targeted capacity-building initiatives aimed at government officials, utility managers, and local energy entrepreneurs. The energy sector's sustainable transition challenges originate in the limited specialized human resource framework in the country for renewable energy project management, financial integration, and systems level project management. PLN's Renewable Integration Training Workshops and Ministry-led Technical Cooperation exchanges aim to cultivate professionals with integrated modern energy technologies and policy governance. One such adaptable institutional framework is the skilled workforce for long transformative agenda that Indonesia is capable of and working to build.

Institutional reforms include redesigning regulations to deconcentrate and shore up regional authorities. Decentralization safeguards to diffuse bureaucratic inertia constraining central command and control facilitates local governments to design and administer energy plans and projects aligned to local resource endowment and socio-economic circumstances. This governance model permits local authorities to innovate and use flexible dispersal and varying governance modalities and energy regimes (IESR, 2025) Social Equity and Decentralization. Legislation being drafted, particularly the upcoming EBET Law, and other provisions on Decentralization and the New Renewable Energy Laws, augur well for rationalizing the governance of and increasing decentralization of actively contested energy resources as it establishes order in market governance and establishes/clarifies inter-institutional relationships (DPR RI, 2025).

A consideration of RUPTL's identified 'institutional reforms' in designing RUPTL plans the 'balance' between diversification and stability of the energy mix in Indonesia is also a priority. 'Balance' in this context represents a phased incorporation of renewable energy in the energy mix, substituting more polluting fossil energy (gas) with a transition period allowed under the 'gas' provisions expected in subsequent reforms of (ESDM, 2025; IEA, 2025). This 'balance' offers reliability and a decoupled energy system, a foundational element for decarbonization

Reforming institutions advances the development of flexible energy governance ecosystems and learning adaptive governance systems. Institutional change involves both external and internal modifications and includes stakeholder adjustments, modular investments, and partnerships across sectors. Collaborative governance with the private sector and civil society has enhanced diffusion of innovations and alignment in policy execution (IESR, 2025). Such partnerships embody the governance innovation of moving beyond rigid hierarchies and top-down control. Polycentric systems of self-renewal and resilience are strategic and adaptive (Folke, 2016).

Indonesia's RUPTL planning for the energy divisions focuses on transformational change, primarily and most fundamentally advancing the deep rewiring of the institutional governance frameworks and systems. He figuratively builds and lights the speed of the dynamic capabilities while most of the world descends into and suffers from a modern governance digitalian nightmare of control and manipulation of systems. Coping with this newfound complexity includes civilizational decentralization's digitalization and organizational learning for a system's adaptive capacity, resilience, and sustaineability over time. Evolutionary governance of the energcy sector, in this region of the world, will provide Indonesia with the stablility, learning capacity, and strategic governance, to reach its Net Zero Emissions (NZE) 2060 target.

Indonesia's Governance and Dynamic Capabilities in Context

The integration of dynamic capabilities theory and governance studies portrays adaptive resilience of Indonesia under national energy transition of RUPTL 2025–2034. The RUPTL 2025–2034 transitions Indonesian energy governance. The dynamic capabilities of sensing, seizing, and transforming, alongside the shifting and alteration of Indonesia energy governance internal and external frameworks, perform adaptive Indonesia energy governance. The intersection of rapid and strategic corporate governance changes at national policy levels through energy systems of national and global scales sets the pace of the governance institution actions. In Indonesia, the dynamic social governance paradigms of Béné et al. (2012) pivot on adaptive resilient social frameworks that meticulously integrate the balancing of long-term energy security, the deployment of renewables, and social equity.

RUPTL shows adaptive governance at work through the combination of sensing, seizing, and transforming at different layers of governance. In addition to the assignment of ancillary policies, the identification and assessment of emerging cutting-edge investments of solar, geothermal, and bioenergy, as well as the corresponding investments with digital real-time data analytics in the energy sector, is also integrated. In the use of adaptive feedback loops, Indonesia is able to maintain a dynamic response to, and from, the various challenges of the global landscape, particularly the geopolitical factors surrounding the importation of fuels and the fluctuating prices of energy commodities. This responds to, and builds on, Teece (2009)’s assertion that adaptive governance enhances the dynamic capabilities of a governance system by strengthening the institutional layer of alignment in coherence and interoperability amidst change and dynamic, cross-border shifts and flows.

Comparative analysis shows Vietnam, Malaysia, and Thailand deploy the same governance model as Indonesia when transitioning to the energy model. However, the case of Indonesia is treated singularly because of the complex and multi-dimensional resource, cultural, and governance configurations (Duarte Alonso et al., 2025). In the case of Indonesia, energy governance includes central government agencies, state-owned enterprises, local public utilities, private sector, citizens and civil society at large, and all forms of actors in the top-down and bottom-up transitions. Pluralism obstructing the fusion of governance systems has the advantage of embedding complex diversification of innovative systems. The notion of nested energy governance systems itself alludes to this, in asserting that adaptive and decentralized control over governance rules (i.e. geographically and functionally disparate systems of local and regional nested governance) and collaborative control over cross-sectoral and inter-

sectoral governance touches systems collaboration mechanisms is systemically formalized (Meadowcroft, 2011).

The further sophistication of Indonesia's green finance ecosystem is additional testimony of Indonesia's capacity to seize and transform. As Indonesia gathers resources to invest in renewable energy infrastructure (IEA, 2025) through state-funded green bonds, blended finance facilities, and other international collaborations such as the Just Energy Transition Partnerships (JETP) initiatives. Green finance attracts new investments, offering a competitive advantage and embedding the Environmental, Social and Governance (ESG) metrics throughout the energy value chain, thereby advancing legitimation and trust by the institution and the investors (OECD, 2024). The case where financial innovation and consolidation of governance systems intersect is the dynamic capabilities in action where assets and relations in a given ecosystem are reconfigured to provide long-term resilience to an otherwise tumultuous setting (Kortus & Gutmann, 2023).

As exemplified in co-evolution of energy transition governance systems in Indonesia, the policy landscape is shaped by institutional learning and stakeholder continuous engagement (Folke, 2016). Stakeholders' collaborative problem-solving synergy, tackling energy challenges such as grid integration of the isolated and remote islands and agricultural regions biomass, are encouraged by RUPTL framework institutional cooperation where policy makers, utilities, and local communities are co-joined (ESDM, 2025). The consolidation of governance systems is designed to foster adaptive experimentation and resilience of energy systems (Pahl-Wostl, 2015). The collaborative social governance framework, constructed through cooperation of the diverse stakeholders, is an adaptive sophistication of energy systems where social opposition is a major obstacle.

In strategic management, dynamic governance in Indonesia represents the microfoundations of dynamic capabilities, particularly regarding leadership cognition, sensemaking, and governance learning (Helfat & Peteraf, 2015). At PLN and ESDM, leaders are strategic coordinators and not just administrators who scan the environment, deploy resources, and manage transformative shifts across sectors. The public governance microfoundations manifesto is in the governance policies learning cycles, including the iterative adjustments of tariffs, renewable targets, and investment structures (Augier & Teece, 2009). In this sense, Indonesia incorporates strategic management concepts and frameworks from the private sector to public governance and sustaining adaptation.

In Southeast Asia, the capability-driven energy transformation pivoted on Indonesia's experience. Indonesia, with its extensive and varied resources as well as its active civil society and currently unfolding privatization, provides an eclectic and experimental governance model. It is possible to apply Folke's (2016) resilience thinking on socio-ecological systems with regard to the Indonesia- Southeast Asia interrelation on energy transformation: socio-ecological stability is the outcome of purposeful and continual transformation and renewal, and socio-ecological systems are never in a static balance.

As a result of embedding dynamic capabilities in governance frameworks, Indonesia is reiteratively improving its management of institutional intricacy, preserving equilibrium within the governance frameworks, and anticipating technological development. This, in turn, is widespread in the governance frameworks of the Global South, including Indonesia, as it enables the governance frameworks to 'decide' the energy transition and, in terms of adaptation, the energy transition 'decision'

proposed. From a global perspective, the adaptive policymaking exemplified by Indonesia serves as an important model for other developing countries that suffer inflexible systems, dependency on resources, and erratic policies which nevertheless require some adaptive movement in the face of uncertainty.

CONCLUSION AND RECOMMENDATIONS

Dynamic capabilities at the national level are exemplified through the case of RUPTL 2025-2034 in Indonesia. The application of the dynamic capabilities theory has created resilient and sustainable RUPTL. Indonesia has been quick at sensing and responding to global shifts in the policy and investment environment and transforming institutional frameworks, amid global uncertainty, to meet ambitious targets on decarbonization and energy security.

In the ongoing consolidation of this progress, the use of predictive analytics, the enhancement of inclusive governance to capture community voice, and the consolidation of inter-sectoral collaboration and partnerships will be critical. The attainment of transformational governance will rest on the availability of flexible funding and regulatory frameworks. Subsequent research, taking an implementation perspective, may seek to define and track RUPTL through time, situate RUPTL in the context of other emerging markets, and examine the innovative governance of dynamic capabilities through digital ecosystems.

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