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Aligning Indonesia's Energy-Market Competition Law with the Sustainable Development Goals: Pathways to a Just Energy Transition

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Abstract

Indonesia's Sustainable Finance Roadmaps (2015-2019; 2021-2025) elevate renewable-energy investment to a national priority, yet the 2023 primary-energy mix is still dominated by coal (39.7 %) and petroleum (29.9 %), with new-and-renewable energy (NRE) at just 13.3 % far short of the 23 % statutory target for 2025. This article undertakes a doctrinal methodology to determine whether the country's current legal architecture furnishes the pro-competitive conditions required to mobilise private capital toward NRE in harmony with the Roadmaps and Sustainable Development Goals 7, 13, and 16. The study systematically interprets (i) Law No. 30 of 2009 on Electricity, Law No. 22 of 2001 on Oil and Gas, and Law No. 21 of 2014 on Geothermal; (ii) implementing regulations and ministerial decrees on grid access, procurement, and feed-in tariffs; (iii) the Law No. 5 of 1999 and its 2023 implementing guidelines; and (iv) OJK Regulation No. 51/POJK.03/2017 on sustainable-finance disclosure. Statutory provisions are examined for hierarchical consistency, internal coherence, and conformity with Article 33(3) of the 1945 Constitution and Indonesia's treaty obligations under the Paris Agreement. Doctrinal scrutiny reveals three normative defects: (1) the electricity law's exclusive procurement mandate enables PLN's de facto monopsony, contravening the non-discrimination principle in the Competition Law; (2) opaque tariff-setting regulations conflict with transparency duties embedded in the sustainable-finance framework; and (3) sectoral licensing rules omit explicit alignment with OJK's green-taxonomy criteria, undermining legal certainty for renewable-energy sponsors. The article recommends statutory amendments to embed open-access grid clauses, mandate competitive tendering consistent with fair-competition norms, and cross-reference green-taxonomy thresholds in energy licences. These reforms would synchronise Indonesia's competition regime with its sustainable-finance objectives and supply the legal certainty essential for a just energy transition.

Keywords: *Energy, Competition Law, Sustainable Development Goals*

INTRODUCTION

Indonesia's Financial Services Authority (*Otoritas Jasa Keuangan, OJK*) embedded the green-growth agenda in two sequential policy blueprints, the Sustainable Finance Roadmap I (2015-2019) and the Sustainable Finance Roadmap II (2021-2025). Both documents elevate renewable-energy financing to "top-priority" status and oblige lenders, institutional investors, and capital-market gatekeepers to align credit allocation with Sustainable Development Goals (SDGs), especially SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action).[1] The Roadmaps introduce green-taxonomy screening, mandatory environmental-social-governance (ESG) risk management, and granular disclosure duties drawing conceptually on EU Regulation 2019/2088 and the Task-Force on Climate-Related Financial Disclosures (TCFD). Yet finance is only one side of the ledger: a coherent legal ecosystem must also guarantee market access, curb abuse of dominance, and foster innovation in the downstream electricity value chain.

Recent energy data underscore why the regulatory architecture matters. Indonesia's primary energy supply reached 1.85 billion BOE (Barrels of Oil Equivalent) in 2023, its highest level in six years, while demand climbed 6.29% to 1.22 billion BOE. Fossil fuels still dominate the mix (coal 39.69 %, petroleum 29.91 %, natural-gas 17.11 %). In contrast, new and renewable energy (NRE) constitutes only 13.29%, far below the statutory 23% target for 2025.[2] Industrial users absorb almost half of all primary energy, primarily driven by coal and gas uptake, while transport accounts for a further 36.74%. This carbon-intensive trajectory conflicts with Indonesia's Paris Agreement-aligned Nationally Determined Contribution and its Just Energy Transition Partnership (JETP) commitment to peak power-sector emissions by 2030.

Legally, the energy landscape is governed by a mosaic of sector-specific statutes, Law No. 30 of 2009 on Electricity, Law No. 22 of 2001 on Oil and Gas, and Law No.

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[1] OJK, "Waspada Pemalsuan Bukti Transfer Menggunakan AI," April 18, 2025, https://ojk.go.id/id/Publikasi/Info-Hoax/Pages/Waspada-Pemalsuan-Bukti-Transfer-Menggunakan-AI.aspx.

[2] Alvin Putra Sisdwinugraha et al., *Indonesia Energy Transition Outlook 2025: Navigating Indonesia's Energy Transition at the Crossroads – A Pivotal Moment for Redefining the Future*, vol. 5 (Institute for Essential Services Reform (IESR), 2024), https://iesr.or.id/en/pustaka/indonesia-energy-transition-outlook-ieto-2025/.

21 of 2014 on Geothermal, layered over the competition framework in Law No. 5 of 1999, enforced by the Competition Commission (KPPU).

Although Law No. 30 of 2009 formally liberalized generation and retail, the state-owned utility PLN retains de facto monopsony power through its exclusive right to procure and dispatch electricity. Empirical scholarship shows that excessive buyer power, coupled with opaque feed-in-tariff negotiations, suppresses independent power producer (IPP) entry and deters private capital from investing in utility-scale renewables.[3] In addition, comparative analyses from Barragán-Ocaña (2025), *et al* warn that such structural bottlenecks slow the diffusion of clean-energy technologies and inflate levelized costs, particularly in middle-income jurisdictions where fossil-fuel incumbents enjoy regulatory rents.[4]

Recent scholarship underscores but also compartmentalizes the legal-economic hurdles in Indonesia's energy transition. Apriliyanti et al. (2024) trace how PLN's enduring monopsony power depresses independent power producer entry and warn that structural reform is indispensable for large-scale renewable deployment. Yet, the study stops short of evaluating competition law remedies.[5] Parallel techno-economic assessments by the Institute for Essential Services Reform highlight that, without rapid regulatory overhaul, Indonesia will overshoot its JETP peaking target and miss the 23 % NRE-mix mandate, but they treat governance issues only tangentially.[6]

On the finance perspective, Barus *et al.* (2025) reveal that even the most capitalized domestic banks disclose ESG risks unevenly, signaling implementation gaps in OJK's Sustainable Finance Roadmap II; however, their granular reporting analysis does not interrogate how market-power distortions in the energy sector undermine

[3] Marion Dumas et al., "Political Competition and Renewable Energy Transitions Over Long Time Horizons: A Dynamic Approach," *Ecological Economics* 124 (April 2016): 175–84, https://doi.org/10.1016/j.ecolecon.2016.01.019.

[4] Alejandro Barragán-Ocaña et al., "Policies and Sustainable Energy Transition in the Global Environment: Challenges for Latin America," *Heliyon* 11, no. 6 (2025): 1–16, https://doi.org/10.1016/j.heliyon.2025.e42295.

[5] Indri Dwi Apriliyanti et al., "To Reform or Not Reform? Competing Energy Transition Perspectives on Indonesia's Monopoly Electricity Supplier Perusahaan Listrik Negara (PLN)," *Energy Research & Social Science* 118 (December 2024): 1–12, https://doi.org/10.1016/j.erss.2024.103797.

[6] Barragán-Ocaña et al., "Policies and Sustainable Energy Transition in the Global Environment: Challenges for Latin America."

bankable green pipelines.[7] By integrating these previously siloed strands of competition law, sector-specific regulation, and sustainable-finance mandates, this article delivers an up-to-date, cross-disciplinary diagnosis at a pivotal moment: the government is drafting post-2025 Roadmap guidelines while renegotiating JETP milestones, and the KPPU is finalizing amendments to its leniency and market-study regulations. A holistic legal appraisal is thus timely for informing statutory revisions and investment decisions that will lock in Indonesia's decarbonization trajectory for the next decade to support development policy based on SDGs baseline.

METHODOLOGY

This article employs a normative legal method that combines a statutory approach[8] close textual analysis of Indonesia's energy-sector laws, implementing regulations, and the Indonesian Law No. 5 of 1999 on Competition Law[9] with a comparative approach that benchmarks those provisions against selected foreign and international standards on grid access, competitive procurement, and market-power control. Two doctrinal questions guide the inquiry. First, do Indonesia's sectoral statutes and their subordinate regulations embed pro-competitive safeguards open grid access, transparent tendering, and non-discriminatory wheeling sufficient to meet the "fair-competition" imperative implicit in SDG 16 and expressly endorsed in the Sustainable-Finance Roadmaps' ESG pillars? Second, does Law No. 5 of 1999, as interpreted by the Competition Commission (KPPU) and the courts, furnish an effective ex-post remedy against market-power abuses exclusive dealing, predatory pricing, discriminatory curtailment that could undermine the green-finance pipeline envisioned by the Financial Services Authority (OJK)? By integrating statutory exegesis with comparative insights, the study elucidates the extent to which

[7] Inten Meutia et al., "Mapping Sustainable Finance: A Detailed Analysis of Banks in Indonesia," *Indonesian Journal of Sustainability Accounting and Management* 4, no. 1 (2020): 13–27, https://doi.org/10.28992/ijsam.v4i1.110.

[8] Sharon Hanson, *Legal Method & Reasoning*, 2nd ed. (Cavendish Publishing, 2003).

[9] Richard Whish and David Bailey, *Competition Law*, 11th ed. (Oxford University Press, 2024), https://doi.org/10.1093/he/9780198906032.001.0001.

Indonesia's current legal architecture supports a competitive, sustainable energy transition and identifies specific normative gaps that require reform.

Addressing these questions, the present article adopts a multilayered legal methodology.[10] At the doctrinal level, it interprets statutory texts, government regulations, and ministerial decrees, considering constitutional energy-sovereignty clauses (Art. 33 para 3 of the 1945 Constitution) and Indonesia's ratified international agreements (United Nations Framework Convention on Climate Change and Paris Accord). At the comparative-law level, it benchmarks Indonesia against the EU Clean Energy Package 2019, that catalyzing renewable energy deployment while preserving consumer welfare. Finally, drawing on law-and-economics literature, the paper assesses how competition-law remedies structural separation, behavioral commitments, and market-share caps can reduce transaction costs and investment risk premia for green-field projects, thereby reinforcing the Sustainable-Finance Roadmap.

By integrating sustainable-finance policy, energy-market data, and competition-law analysis, this study argues that Indonesia's decarbonization ambitions depend not only on mobilizing investment, but also on recalibrating the legal and institutional mechanisms that govern market conduct in the energy sector. A just energy transition cannot be achieved through capital flows alone if competitive distortions, regulatory capture, or uneven market access continue to shape the electricity and gas industries. Accordingly, the following sections map Indonesia's statutory framework, critically assess KPPU jurisprudence in the electricity and gas sectors, and propose targeted legislative and regulatory reforms to ensure that energy-market competition supports the Sustainable Development Goals and principles of fairness in transition.

[10] Nicholas Bamforth and Peter Leyland, eds., *Public Law in a Multi-Layered Constitution* (Hart Publishing, 2003).

RESULT AND DISCUSSION

Normative Analysis of Management and Competition in the Indonesian Energy Sector

Energy governance in Indonesia is structured through a legal framework that is both sectoral and cross-sectoral in nature. The core norms are articulated in Law No. 30 of 2007 on Energy (Energy Law), which defines energy, energy management, and the scope of activities encompassing the supply, utilization, business activities, strategic reserves, and conservation of energy resources. However, as recognized by the legislature, the pursuit of energy security and sustainability cannot rely solely on a single legislative instrument. The Energy Law thus serves as an protection act, supported by complementary legal regimes: Law No. 22 of 2001 on the Oil and Gas, Law No. 21 of 2014 on the Geothermal (amendment of Law No. 27 of 2003), the Law No. 3 of 2020 on Mining (amandment of Law No. 4 of 2009), the Law No. 30 of 2009 on Electricity, as well as various government regulations (*Peraturan Pemerintah*), ministerial regulations (*Peraturan Menteri*), and ministerial decrees (*Keputusan Menteri*) that address technical issues ranging from tariff setting and domestic market obligations to emission standards for power plants.

At the level of policy objectives, the Government through the Sustainable Finance Roadmap Phase I (2015–2019) and Phase II (2021–2025) has prioritized renewable energy financing in pursuit of the national target of a 23% share of new and renewable energy (NRE) in the energy mix by 2025, as stipulated in the National Energy Policy (RUEN) under Presidential Regulation No. 22 of 2017, and reinforced through Indonesia's international commitments under the Paris Agreement. However, data from 2023 indicate that the NRE contribution remains at just 13.3%. This gap underscores the need for a critical reassessment: does the current legal framework consistently incorporate pro-competition safeguards and sustainability principles?

The Energy Law defines "energy supply" as the process of providing energy from domestic or foreign sources.[11] This definition must be read together with Article 3(2)

[11] Law No. 30 of 2007 on Energy art. 1 (15).

of the same Law, which obliges the state to prioritize domestic resources and to ensure the availability of energy for the public. These provisions reflect a state-centered regulatory model in which the government retains primary responsibility for securing national energy supply. In practice, this mandate has translated into a dominant role for state-owned enterprises (SOEs), including Pertamina, PLN, and PT Geo Dipa, in key segments of the energy sector.

This statutory framework is constitutionally grounded in Article 33(3) of the 1945 Constitution, which requires that sectors of production vital to the state and affecting the livelihood of the people be controlled by the state. While the constitutional doctrine of state control does not preclude private participation, it establishes a structural preference for state direction and oversight. The resulting dual mandate—state control on the one hand and market participation by both SOEs and private actors on the other—creates an inherent normative tension when assessed against the objective of fostering fair business competition under Indonesia's competition law regime.

The concept of "business activities" under the Energy Law encompasses both the supply and/or utilization of energy.[12] In the oil, gas, and mineral sectors, production-sharing contracts (PSC) with a gross split mechanism and mining business licenses provide legal certainty; however, Pertamina's dominant position and the historical cost-recovery model continue to shape upstream market structures. In the electricity sector, Law No. 30 of 2009[13] mandates the unbundling of business activities, but at the same time the Government granting PLN preferential rights as the holder of Integrated Business Areas (*Wilayah Usaha Terintegrasi*). As a result, PLN retains a monopoly over transmission and acts as a monopsony buyer in electricity procurement. Doctrinally, state monopolies are permissible when they constitute a natural or legal monopoly that is anticompetitive in form yet serves the public welfare. Nevertheless, a legal monopoly must be accompanied by appropriate checks and balances: open network access, fair tariffs, and third-party access (TPA) rights.

[12] Law No. 30 of 2007 on Energy art. 1 (18).
[13] Law No. 5 of 1999 on the Prohibition of Monopolistic Practices and Unfair Business Competition art. 10.

The concept of energy utilization is broad, covering industrial, transportation, household, and commercial sectors[14]. Efficiency norms are reflected in Presidential Regulation No. 70 of 2009 on Energy Conservation, which mandates compulsory energy management for energy-intensive industries. In practice, however, enforcement of energy audit obligations remains weak, with administrative sanctions rarely imposed. This situation has led to energy leakage and hampers progress toward achieving the target of final energy intensity of 1 MBtu per USD GDP by 2025. The Energy Law does not explicitly regulate the legal form of strategic energy reserves, delegating technical authority to the Government through implementing regulations. The Draft Government Regulation on Strategic Energy Reserves, which has been circulated since 2021, has yet to be enacted. In the absence of regulatory certainty, fiscal incentives for businesses to explore and develop strategic petroleum reserves (SPR) remain suboptimal.[15]

Energy Law[16] regulate conservation in accordance with the polluter-pays principle. However, its implementation remains fragmented, caught between the mechanisms of a carbon tax and other overlapping regulatory instruments[17], and is delayed alongside the voluntary carbon market. In Europe, EU Directive 2018/2002 requires member states to reduce primary energy consumption by 32.5% by 2030, a best-practice standard that can serve as a benchmark for a comparative approach.

A plurality of legal instruments governs Indonesia's energy sector. The Energy Law serves as a lex generalis, while the Oil and Gas Law, Mining Law, Geothermal Law[18], and Electricity Law function as *lex specialis*. The principle of *lex specialis derogat legi generali* requires that specific provisions prevail over general provisions in cases of conflict. However, such conflicts are not always explicit. For instance, Article 10 of Law No. 30 of 2009 (granting PLN exclusive rights over Integrated Business Areas)

[14] Law No. 30 of 2007 on Energy art. 1 (16).

[15] Nasrun Lukman and James M. McGlinchey, "The Indonesian Petroleum Industry: Current Problems and Future Prospects," *Bulletin of Indonesian Economic Studies* 22, no. 3 (1986): 70–92, https://doi.org/10.1080/00074918612331334894.

[16] Law No. 30 of 2007 on Energy art. 25-27.

[17] Law No. 7 of 2021 on Harmonization of Tax Regulations Art. 5.

[18] Andri D. Setiawan et al., "Evaluating Feed-in Tariff Policies on Enhancing Geothermal Development in Indonesia," *Energy Policy* 168 (September 2022): 113164, https://doi.org/10.1016/j.enpol.2022.113164.

appears inconsistent with Article 4 of Law No. 5 of 1999 (Indonesia's Competition Law). Furthermore, Law No. 3 of 2020 on Mining introduces an automatic extension of Special Mining Business Licenses (IUPK), which may create entry barriers for new license holders, contrary to the principles of fair competition.

The principles of regulatory harmonization and systematic interpretation are employed by courts to reconcile seemingly conflicting norms between general (*lex generalis*) and special (*lex specialis*) legislation. Within the Indonesian doctrine of statutory interpretation, harmonization is understood as "placing each norm within its proper hierarchical order without negating the validity of any norm," thereby achieving legal coherence and avoiding fragmented outcomes.[19] The systematic interpretation method requires judges to read problematic provisions within a "unified text," in conjunction with the Constitution, general legal principles, and implementing regulations.[20]

A concrete application of this approach can be seen in Constitutional Court Decision No. 001-021-022/PUU-I/2003, which reviewed the constitutionality of the privatization of the electricity sector. The Court interpreted the phrase "controlled by the state" (*dikuasai oleh negara*) in Article 33(3) of the 1945 Constitution as encompassing four dimensions: policy, regulation, management, and supervision.[21] As a consequence, state control does not imply exclusive management by State-Owned Enterprises (SOEs). The state may delegate roles to private actors or utilize market mechanisms, provided it retains strategic control through regulation and supervisory instruments, including the enforcement of competition law by the Business Competition Supervisory Commission (KPPU).[22]

The Constitutional Court's decision subsequently served as a reference in later disputes, such as the judicial review of Law No. 22 of 2001 on Oil and Gas (Constitutional Court Decision No. 36/PUU-X/2012) and the Mining Law

[19] Kusnu Goesniadhie, *Harmonisasi Hukum dalam Perspektif Perundang-undangan: Lex Specialis Suatu Masalah*, 1st ed. (JP Books, 2006).

[20] Maria Farida Indrati, *Ilmu Perundang-Undangan: Jenis, Fungsi, Dan Materi Muatan* (PT Kanisius, 2020).

[21] Decision of the Constitutional Court of the Republic of Indonesia No. 001-021-022/PUU-I/2003 (MK RI 2003).

[22] Rachmadi Usman, *Hukum Persaingan Usaha Di Indonesia*, 1st ed., ed. Tarmizi (Sinar Grafika, 2013).

(Constitutional Court Decision No. 10-17/PUU-VII/2009). Both cases reinforced the same principle: a state-owned enterprise (SOE) monopoly is not automatically required; the state may exercise control through mechanisms such as licensing, production sharing contracts, base tariffs, or domestic market obligation requirements to safeguard the public interest.[23]

Theoretically, this approach aligns with the concept of the regulatory state, which positions the government as a "rule-setter" rather than a "sole operator.".[24] In the energy sector, mechanisms such as open tenders, network unbundling, and non-discriminatory wheeling tariffs represent forms of competition oversight that remain consistent with the mandate of Article 33 of the Constitution. Redi (2020) demonstrates that a combination of sectoral regulation and ex-post antitrust enforcement can promote efficiency without compromising state sovereignty over natural resources. [25] Thus, the principles of harmonization and systematic interpretation provide a flexible yet constitutional legal foundation for energy sector reform: the state continues to "exercise control" through regulation and supervision, while the market is granted space to compete fairly in pursuit of sustainability and equitable energy access.

The Competition Law as an Ex-Post Backstop

Law No. 5 of 1999 on the Prohibition of Monopolistic Practices and Unfair Business Competition serves as an "ex-post backstop" across all economic sectors, including energy. Articles 4–16 prohibit agreements that may give rise to monopolistic practices such as price cartels, market allocation, exclusive dealing, and bid rigging, while Articles 25–28 address the abuse of dominant positions, including discriminatory access, refusal to deal, and predatory pricing. Nevertheless, the energy sector, given its fundamental importance to the public, often exhibits a "hybrid" market structure in which certain state monopolies are constitutionally permitted.[26] At the same time, there is also room for private-sector competition to

[23] Decision of the Constitutional Court of the Republic of Indonesia No. 10-17/PUU-VII/2009 (MK RI 2009).
[24] Giandomenico Majone, ed., *Regulating Europe*, 1st ed., European Public Policy (Routledge, 2005).
[25] Ahmad Redi, *Hukum Energi: Konsep, Sejarah, Asas, Dan Politik Hukum*, 1st ed. (Rajawali Press, 2020).
[26] The Constitution of the Republic of Indonesia (1945).

promote efficiency. This balance often leads to overlaps between Law No. 5 of 1999 and sectoral laws (on electricity, oil and gas, mining, and geothermal energy), which grant exclusive rights to State-Owned Enterprises (SOEs) or to special agencies.

Several cases illustrate monopolistic practices conducted by State-Owned Enterprises (SOEs):

1. The PLN Pekanbaru Branch Case

   This case originated from complaints by industrial consumers in Riau, who were required to purchase service connection materials such as cables, breakers, poles, and kWh meters exclusively from PLN's business unit. The package prices were found to be 15–30% higher than market prices and lacked transparency.[27] PLN argued that it operates under an Integrated Business Area (*Wilayah Usaha Terintegrasi*) as stipulated in Article 10 of Law No. 30 of 2009 on Electricity. Therefore, the sale of materials is considered part of its public service obligation (obligation to serve).[28] PLN also cited Article 50(a) of Law No. 5 of 1999, which exempts from antitrust sanctions any "agreements, activities, or abuse of dominant position carried out pursuant to and under the order of a law."

   The KPPU Assembly rejected the argument.[29] First, the purchase of connection materials is not a legal obligation; PLN is only ordered to distribute electricity, not to sell devices at prices determined by PLN itself. Second, the exceptions to Article 50 are limited and must be interpreted narrowly[30] only if sectoral norms explicitly mandate monopolistic actions. Third, the practice closes access to independent suppliers and shifts monopoly "rents" from the transmission sector to the upstream material supply chain. As a result, PLN was found to have violated Article 17

[27] Faradylla Ninda Octaviani, "Analisis Yuridis Penentuan Penyalahgunaan Posisi Dominan Dalam Hukum Persaingan Usaha Di Indonesia: Studi Terhadap Putusan-Putusan Tahun 2006-2015 Komisi Pengawas Persaingan Usaha" (Thesis, Fakultas Hukum Universitas Indonesia, 2016), https://lib.ui.ac.id/detail?id=20433511&lokasi=lokal.

[28] Law No. 30 of 2009 on Electicity.

[29] Decision of the Business Competition Supervisory Commission Number 25/KPPU-I/2008 on Alleged Violations of Article 17 and Article 25 of Law 5/1999 in the Sale of Connection Materials by PT PLN (Persero) Riau & Riau Islands Region (KPPU 2009).

[30] Usman, *Hukum Persaingan Usaha Di Indonesia*.

(monopoly) and Article 25 (abuse of dominance) and was required to open component price lists, allow customers to purchase materials from any supplier if they meet technical standards, and pay administrative fines.

The significance of this ruling lies in the doctrine of the "dual function" of SOEs: although the state grants exclusive rights over transmission, an SOE may not expand its dominance into complementary markets unless expressly authorized by law.

2. The Sulawesi Gas Power Plant (PLTG) Tender Cartel Case

The tender for the 2 × 100 MW Gas Power Plant (PLTG) project in Sulawesi, procured by PLN (Persero) under an Engineering, Procurement, and Construction (EPC) scheme, provides a clear example of vulnerabilities in Indonesia's energy infrastructure procurement. In Decision No. 15/KPPU-I/2018, the Business Competition Supervisory Commission (KPPU) found evidence of "shadow bidding" among consortia: one consortium submitted the lowest bid but included a conditional price escalation clause, while its "shadow" consortium offered a slightly higher, unconditional bid. This created the appearance of rational choice for the tender committee, while in fact steering the process toward a more expensive contract. Forensic bid-pattern analysis confirmed coordinated pricing and market allocation practices prohibited under Article 11 of Law No. 5 of 1999 (price-fixing).[31]

Based on these findings, KPPU imposed a cumulative fine of IDR 60 billion and recommended that PLN: (i) revise the Request for Proposal to include a no collusion clause, (ii) implement an online reverse auction for price transparency, and (iii) require an integrity pact for all EPC contractors.[32] This decision is in line with Usman's analysis, which emphasizes that anti-cartel sanctions must be accompanied by reform of procurement procedures so that they do not recur. This case shows the vulnerability of energy infrastructure

[31] Decision of the Business Competition Supervisory Commission No. 15/KPPU-I/2018 on Alleged Violations of Article 11 and Article 22 of Law No. 5 of 1999 in the Sulawesi Gas Power Plant Tender (KPPU 2019).

[32] Law No. 5 of 1999 on the Prohibition of Monopolistic Practices and Unfair Business Competition Art. 11, 22, 50.

procurement: even when managed by state-owned enterprises, large-value projects are vulnerable to cartels among EPC contractors. Law Number 5 of 1999 is the only instrument that can take ex post action after public losses have occurred.

Normatively, the Sulawesi PLTG case confirms two things. First, Article 11 in conjunction with Article 22 of Law Number 5 of 1999 effectively ensnares cartel practices even though the perpetrators hide behind the technical complexity of the EPC project. Second, the exception to Article 50(a), which is often used as a shield by BUMN, does not apply because price collusion has never been ordered by Law Number 30 of 2009 concerning Electricity or by other derivative regulations.[33] Thus, synergy between antitrust enforcement and procurement regulation reform is an absolute prerequisite so that large-scale energy projects no longer become cartel fields, while also ensuring that public financing and consumer tariffs are used efficiently and transparently.

3. Pertamina Aviation Fuel Case

On the downstream side of the oil and gas industry, Pertamina holds exclusive rights to hydrant dispenser infrastructure at 68 airports. KPPU received airline reports that Pertamina's Avtur price is 30% more expensive than Singapore's.[34] The preliminary investigation by KPPU stopped at the preliminary inquiry stage because Pertamina showed the ESDM Ministry's price regulations.[35] However, KPPU still issued a policy recommendation (non-binding) so that regulators open access to hydrant pipes for foreign Jet A-1 companies. Such regulations were finally stated in Permenhub No. 126 of

[33] Muhammad Insa Ansari, "BUMN Dan Penguasaan Negara Di Bidang Ketenagalistrikan," *Jurnal Konstitusi* 14, no. 1 (20/): 104–23, https://doi.org/10.31078/jk1415.

[34] Purnomo Yusgiantoro and Luky Yusgiantoro, *Ekonomi Energi: Teori dan Praktik*, 1st ed. (Yayasan Purnomo Yusgiantoro, 2024).

[35] KPPU, *KPPU Lakukan Penyelidikan Atas PT Pertamina Patra Niaga Dalam Dugaan Praktik Monopoli Dan Penguasaan Pasar Penyediaan Avtur Di Bandar Udara* (Komisi Pengawas Persaingan Usaha, 2024), https://kppu.go.id/blog/2024/09/kppu-lakukan-penyelidikan-atas-pt-pertamina-patra-niaga-dalam-dugaan-praktik-monopoli-dan-penguasaan-pasar-penyediaan-avtur-di-bandar-udara/.

2015[36] which allows "self-fueling" of certain airlines. Although not a court decision, the Avtur case demonstrates the KPPU's corrective advocacy function *vis-à-vis ex-ante* policies.[37]

4. Fertilizer Industry Gas Case

   The fertilizer industry complained that the price of piped gas in Sumatra was higher than in Malaysia even though the gas source was the Natuna block. Law Number 22 of 2001 does give SKK Migas (Special Task Force for Upstream Oil and Gas Business Activities) the authority to set the price of upstream gas;[38] However, the determination of the trading margin of PT PGN (a subsidiary of Pertamina) is considered non-transparent.[39] Through the 2020 market study, KPPU assessed that the structure of the gas sector shows vertical upstream-downstream integration that is prone to margin squeeze. KPPU asked the government to: review the pricing formula, implement tolling tariffs for pipelines (open-access), and separate transmission and trading businesses. Although there has been no determination of sanctions, this recommendation prompted the birth of Presidential Regulation No. 121 of 2020 concerning Certain Natural Gas Prices for Industry.[40]

Energy-Related Competition Policy and Its Law Enforcement

Competition has not been alien to the development of the energy industry. The oil and gas sector has even been closely linked to competition issues, in particular with the development of competition law. The establishment of the Standard Oil Company in 1870 by John D Rockefeller, which incorporated oil and gas shareholders in the form of a "trust", was the largest company with a large-scale

[36] Regulation of the Minister of Transportation No. 126 of 2015 on the Formulation Mechanism for Calculation and Determination of Upper and Lower Limit Tariffs for Economy Class Passengers for Domestic Scheduled Commercial Air Transportation (2015).

[37] Huta Disyon et al., "Tinjauan Hukum Persaingan Usaha Terhadap Dugaan Praktik Monopoli Penjualan Avtur Di Indonesia," *Jurnal Persaingan Usaha* 3, no. 2 (2023): 163–74, https://doi.org/10.55869/kppu.v3i2.111.

[38] Decree of the Head of the Special Task Force for Upstream Oil and Gas Business Activities No. KEP-0155/SKKO0000/2015/S0 of 2015 on Guidelines for Work Procedures for Approval of Work Completion (2015).

[39] Kenneth C. Laudon and Jane Price Laudon, *Essentials of Management Information Systems*, 14th ed. (Pearson, 2020).

[40] Presidential Regulation (Perpres) No. 121 of 2020 on Amendments to Presidential Regulation No. 40 of 2016 on Determination of Natural Gas Prices (2020).

economy. The established trust eliminated competition among business actors. This context led to the enactment of the US Antitrust Law, namely the Sherman Antitrust Act (1890), a competition law prohibiting anti-competitive practices. After facing numerous lawsuits, the Standard Oil Trust was unbundled, resulting in the emergence of many new companies operating in separate segments of the industry.

An OECD study shows that at least four types of prohibited agreements or activities under competition law are frequently found in the energy industry. Therefore, competition authorities must be the "referee" to protect an inclusive and competitive energy market. Enforcement of competition law may begin by conducting regular, in-depth reviews of the energy market and promptly investigating any behaviour that unreasonably affects supply or demand.[41]

1. Cartels and other horizontal behavioral issues

   Energy production and upstream markets are vulnerable to cartel conduct. This vulnerability occurs for two main reasons.

   a. Cartels manifest numerous characteristics that tend to facilitate collusion, i.e. a small number of competitors; small or no market to enter for reasons like high fixed costs or regulatory barriers; stable market conditions with a constant and predictable flow of demand; identical products or services; extremely few substitutes available; and relatively minor technological changes in the industry, which facilitate the upholding of the agreement over time.

   b. Market forces may drive up-and-down cycles - periods of high prices that encourage an influx of excess supply, followed by falling prices and business collapse. These cycles, characterized by volatile prices and occasional periods of scarcity, create market disruptions that affect producers and consumers. For instance, OPEC states that its mission is to "coordinate and unify the petroleum policies of its Member Countries and

[41] Dumas et al., "Political Competition and Renewable Energy Transitions Over Long Time Horizons: A Dynamic Approach."

ensure the stabilization of oil markets" rather than to maximize profits per set.[42] Yet numerous studies show that the organization's ability to curb volatility is uneven. Fattouh and Mahadeva find that OPEC often loses the power to limit price movements,[43] a conclusion echoed in an IMF event-study showing only "limited and inconsistent" effects of OPEC announcements on prices. Accordingly, modern cartel theory recognises that collusion may pursue dual goals: raising joint profits and smoothing prices to avoid destructive price wars. Motta notes that early cartels were formed precisely "to maintain high prices and price stability after bouts of price cutting."[44]

State resource monopolies are often justified on two intertwined grounds. First, by concentrating legal control in a single entity the State can appropriate a larger share of natural-resource rents and recycle them into public budgets, industrial policy, or social programs.[45] Second, a unitary seller or buyer can in theory dampen extreme price swings that would otherwise hurt producers during bust cycles or expose consumers to sudden spikes. Hence many countries have enshrined exclusive rights for their national oil companies: Qatar Energy, for example, retains full upstream ownership and marketing authority so that Doha can steer export volumes in line with long-term fiscal planning while shielding domestic users from volatility.[46]

Indonesia originally adopted the same template. Under Law No. 8 of 1971, Pertamina acted simultaneously as regulator, concession holder, and sole downstream operator an arrangement meant to maximize state take and

[42] Bassam Fattouh and Lavan Mahadeva, "OPEC: What Difference Has It Made?," *Annual Review of Resource Economics* 5, no. 1 (2013): 427–43, https://doi.org/10.1146/annurev-resource-091912-151901.

[43] Fattouh and Mahadeva, "OPEC: What Difference Has It Made?"

[44] Massimo Motta, *Competition Policy: Theory and Practice*, 1st ed. (Cambridge University Press, 2004).

[45] Silvana Tordo et al., *Natural Oil Companies and Value Creation*, The World Bank Working Paper 218 (The International Bank for Reconstruction and Development/The World Bank, 2012).

[46] Qatar Energy LNG, *QatarEnergy LNG 2024 Sustainability Report* (The Public Relations Department Qatar Energy LNG, 2024), 72, https://www.qatarenergylng.qa/Portals/0/DNNGalleryPro/uploads/2025/11/12/QatarEnergyLNGSustainabilityReport2024-EN.pdf.

secure "energy sovereignty."[47] By the late-1990s, however, two problems had become visible: (i) the integrated monopoly lacked the capital and technology to stem declining production, and (ii) opaque cross-subsidies masked actual costs, blunting price signals and discouraging efficiency.[48] These concerns prompted a pivot to a competition-oriented framework through Law No. 22 of 2001 on Oil and Gas, which (a) stripped Pertamina of its regulatory powers, transferring them to the newly created SKK Migas, and (b) opened refining, transport, and retail markets to private and foreign firms albeit under licensing rules and domestic-supply obligations that still preserve state command over strategic reserves. In short, while many countries continue to rely on full monopolies to extract rents and smooth prices, Indonesia now pursues a hybrid model that tries to balance those original goals with the discipline and capital inflows that competitive entry can deliver.[49]

The changes were triggered not only by various efficiency-related reasons but also by attempts to optimize oil and gas management that can provide the greatest prosperity for the people. However, it is interesting to see that in the liquefied petroleum gas (LPG) subsector. There are almost no new business actors entering the market. In the processing industry, there are two major groups of LPG processing markets, namely the LPG processed by KPS (Production Sharing Contract Contractors) oil and gas refineries (which are distributed for export) and the domestic market entirely handled by PT Pertamina (either from imports, self-production, or some derived from KPS results). As a result, there has been a lack of competition in supplying processed LPG to the market. As such, antitrust enforcement is essential to address covert cartels and other horizontal agreements in the energy sector.[50]

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[47] Law No. 8 of 1971 on State Oil and Gas Mining Companies.

[48] Afghania Dwiesta, "Indonesia's Upstream Petroleum Governance Reform: Which Model Is Constitutional Enough?," *Indonesia Law Review* 8, no. 3 (2018): 277–302, https://doi.org/10.15742/ilrev.v8n3.511.

[49] Dwiesta, "Indonesia's Upstream Petroleum Governance Reform: Which Model Is Constitutional Enough?"

[50] For instance, in 2009, the European Commission imposed fines of EUR 553 million each on E.ON and GDF for market sharing in the French and German gas markets. When E.ON and GDF jointly constructed the MEGAL pipeline in Germany to import Russian gas into Germany and France in 1976, the two companies agreed not to sell gas transported through this pipeline in each other's domestic markets. They maintained this agreement

2. Vertical integration is quite common in commodity production.

   Vertical integration is not per se anticompetitive; under specific factual settings, it can be efficiency-enhancing and therefore justifiable even within a strict competition-law framework. A recurrent illustration arises in the upstream natural-gas business, where many jurisdictions lack the dedicated infrastructure of liquefaction terminals, regasification units, and long-haul pipelines required to handle liquefied natural gas (LNG). Infrastructure owners are reluctant to commit the substantial, sunk capital these facilities demand until prospective throughput reaches a volume that ensures an adequate return. Yet large-scale gas production cannot materialize unless the infrastructure already exists, a classic "chicken-and-egg" dilemma. In practice, the impasse is broken when the producer itself assumes control over successive links in the value chain, internalizing risk and exploiting economies of scale. In such circumstances, vertical integration may advance, rather than impede, the policy objectives of security of supply, investment mobilization, and ultimately lower end-user prices, provided that access for third parties is preserved once the market attains maturity.

   However, control of critical infrastructure may enable anti-competitive conduct once companies are vertically integrated and the industry is well established, to the point that competitors seek to enter.[51] Without access to critical infrastructure, such as distribution networks or pipelines, it is difficult for competitors to use proven reserves for production and distribution. Competition policy is therefore crucial to ensure that third-party access to critical infrastructure remains non-discriminatory and that existing business

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until 2005. see European Commission, *Communication from the Commission: Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings*, Policy Brief 2009/C 45/02 (Official Journal of the European Union, 2009), 7–20, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52009XC1016(01)&utm_source=chatgpt.com.

[51] The essential facilities doctrine establishes that a company (a monopoly) with bottleneck control over a resource (facility) essential for competition, typically in a downstream market, and where that facility cannot be duplicated, must share access to that facility with its competitors in the market. see Siti Anisah, "Essential Facilities Doctrines Pada Penguasaan Pasar Oleh Badan Usaha Milik Negara," *Refleksi Hukum: Jurnal Ilmu Hukum* 7, no. 1 (2022): 37–62, https://doi.org/10.24246/jrh.2022.v7.i1.p37-62.

actors are prevented from abusing their dominant market position to hinder the entry of potential competitors.[52]

Regulation of the Minister of Energy and Mineral Resources No. 4 of 2018 on Natural Gas Production in Downstream Oil and Gas Business Activities regulates natural gas processing activities, including transportation, trading, and storage. Regarding natural gas production activities through pipelines on transmission sections, this Regulation prescribes that natural gas transportation activities through pipelines on transmission sections can only be carried out by a single business entity and natural gas consumers in a Specific Commercial Area (WNT) whose area is the same as the Distribution Network Area (WJD) can only be supplied by that single business entity that holds an oil and natural gas trading business license following Article 14 paragraph (7). Regulating a single business entity within in single Transmission Section and Distribution Network Area in a Specific Commercial Area leads to monopolistic practices that create unfair competition. The implementation of this Ministerial Regulation does not constitute an exception as referred to in Article 50, paragraph a, and Article 51 of Law No. 5 of 1999, since the Ministerial Regulation is an implementing regulation and does not obtain any delegation from the Law. Therefore, the provision regarding a single business entity lacks a legal basis for its protection.

The government has also issued a regulation related to jet fuel distribution through the Regulation of the Downstream Oil and Gas Regulatory Agency No. 13 of 2008. Through this regulation, PT Pertamina Patra Niaga holds a monopoly position, which results in a barrier to entry and potentially leads to

[52] For example, the EC intervened against infrastructure abuse in the case of RWE, E.ON, ENI, CEZ, and Svenska Kraftnet. In 2011, the EC launched an antitrust case against Gazprom over allegations of anti-competitive practices against smaller gas-importing countries in Eastern Europe. Gazprom was accused of pursuing an overall strategy to segment natural gas markets along national borders to allow Gazprom to charge higher prices. In 2018, the EC imposed restrictions on Gazprom's behaviour, removing cross-border resale restrictions to allow the free flow of gas at competitive prices. see Chi Kong Chyong et al., "Market Power and Long-Term Gas Contracts: The Case of Gazprom in Central and Eastern European Gas Markets," *The Energy Journal* 44, no. 1 (2023): 55–74, https://doi.org/10.5547/01956574.44.1.cchy.

monopolistic practices harmful to consumers.[53] The Indonesia Competition Commission (KPPU) identified PT Pertamina Patra Niaga's monopolistic practices as a factor in the high price of airplane tickets. Jet fuel prices in Indonesia are higher than at ten other international airports.[54]

Regulation of the Minister of Energy and Mineral Resources No. 49 of 2018, as amended by Regulation of the Minister of Energy and Mineral Resources No. 13 of 2019 (a regulation on the use of solar power systems on the roof by consumers of PLN) was issued to implement the government's mandate for PLN to purchase excess power from solar power systems installed on the roofs of PLN's customers. This regulation violates the antitrust principle because it effectively imposes an entry barrier for private businesses - including small and medium enterprises - in procuring solar power systems by requiring a license from PLN. Even if permitted by PLN, the installed capacity of the solar power plant cannot exceed the installed capacity of PLN's customer facilities.[55]

3. Anti-Competitive Merger

Merger controls ensure that mergers and acquisitions do not result in over-concentrated markets, allowing market participants to exercise market power unilaterally or in a coordinated way. The scope for substitution in energy markets is often tiny, meaning demand is inelastic to price. Therefore, monopolists have considerable scope to raise prices, resulting in increased revenues.[56]

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[53] Razaan Nazhif Firmansyah and A. M. Tri Anggraini, "Analisis Praktik Monopoli Dalam Pemasaran Bahan Bakar Avtur Di Indonesia Dari Perspektif Hukum Persaingan Usaha," *Reformasi Hukum Trisakti* 6, no. 3 (2024): 1135–45, https://doi.org/10.25105/refor.v6i3.21128.

[54] The Indonesian Competition Commission recommended the implementation of an open access and multi-provider system for jet fuel distribution to promote competition and recommended a revision of related government policies. see Disyon et al., "Tinjauan Hukum Persaingan Usaha Terhadap Dugaan Praktik Monopoli Penjualan Avtur Di Indonesia."

[55] Suci Modjo, "PLN Vs Energi Terbarukan: Peraturan Menteri ESDM Terkait Penggunaan Sistem Pembangkit Listrik Tenaga Surya Atap," *Jurnal Hukum Lingkungan Indonesia* 6, no. 1 (2020): 19–40, https://doi.org/10.38011/jhli.v6i1.89.

[56] In natural gas, the US FTC has scrutinized mergers, including the acquisition of EP Energy by EnCap Investment, El Paso Energy Corporation and The Coastal Corporation, and the acquisition of Nuevo Midstream LLC by Anadarko Petroleum. Interestingly, the US DOJ required S&P Global to divest three IHS Market price

There are considerable barriers to entry in electricity generation given the high initial investment costs of building generation assets (i.e., offshore wind farms), which are more easily borne by existing business actors with large balance sheets than new entrants. Competition authorities must scrutinize mergers closely to ensure that they do not lead to excessive market concentration - especially when the market is already oligopoly.[57]

Recently, the Indonesian Competition Commission imposed a fine of IDR 10 billion on PT Tamaris Hidro for late notification of its acquisition of shares of PT Sumber Baru Hydropower (*vide* Case No. 06/KPPU-M/2024). This case stems from PT Tamaris Hidro's acquisition of PT Sumber Baru Hydropower's shares in two transactions in 2021. PT Tamaris Hidro is a renewable energy company within the Salim Group's business entities, engaged in hydroelectric power plants (PLTA) and mini-hydropower plants (PLTM). At the same time, PT Sumber Baru Hydropower is a mini-hydro power plant company.[58]

4. Other forms of abuse and dominance

Since electricity is challenging and expensive to store, and the grid must always be balanced, electricity markets pose unique questions about which companies have market power and the scope for occasional abuse. In markets with a nodal or zonal price,[59] generators may have market power when

reporting agencies to resolve antitrust concerns, given the importance of price reporting agencies for price discovery in commodity markets and concerns that the proposed merger might result in higher prices and lower quality. see Joseph Farrell et al., "Economics at the FTC: Mergers, Dominant-Firm Conduct, and Consumer Behavior," *Review of Industrial Organization* 37, no. 4 (2010): 263–77, https://doi.org/10.1007/s11151-010-9268-2.

[57] The EC examined the acquisition of Uniper by Fortum and the acquisition of Innogy by RWE by E.ON. The UK Competition and Markets Authority also investigated mergers and acquisitions between SSE Energy Services and OVO, SSE Retail and Npower, and Npower and EON. see Jens Fuhrmann and Reinhard Madlener, "Evaluation of Synergies in the Context of European Multi-Business Utilities," *Energies* 13, no. 24 (2020): 6676, https://doi.org/10.3390/en13246676.

[58] Hammam Izzuddin, "KPPU Denda PT Tamaris Hidro Milik Grup Salim Senilai Rp10 Miliar, Ini Alasannya," *Tempo.Co* (Jakarta), November 14, 2024, https://www.tempo.co/ekonomi/kppu-denda-pt-tamaris-hidro-milik-grup-salim-senilai-rp10-miliar-ini-alasannya-1167957.

[59] Under a zonal pricing regime, the transmission grid is partitioned into a small number of predefined zones, and a single uniform market price is calculated for each zone in every settlement interval. The zone boundaries are drawn around major network bottlenecks so that intra-zonal flows are assumed to be unconstrained, while interfaces between zones reflect the points most likely to experience congestion. By contrast, a nodal or locational marginal pricing (LMP) framework assigns a unique wholesale price to every injection or withdrawal point on the system, often hundreds or even thousands of nodes corresponding to generator buses and load-delivery substations. The price at each node equals the incremental (marginal) cost of delivering one additional megawatt at that precise location, incorporating the energy charge, transmission-loss component, and any congestion surcharge. Accordingly, wholesale prices can diverge across nodes in

transmission constraints shrink the size of the geographical market in which they compete. Under certain system conditions, a generator may be the only one able to meet the energy needs of a particular location, making it a monopolist facing completely inelastic demand with no market constraints on the prices it can charge. In these circumstances, the System Operator is commonly authorized to restrict the bids of generators that it considers to have local market power.

PLN's dominant position in electricity procurement poses a significant challenge for many independent electricity producers, especially under Regulation of the Minister of Energy and Mineral Resources No. 50/2017 on the utilization of renewable energy sources for electricity supply, which makes the procurement process complicated, time-consuming, and opaque. The reason is that PLN's Direct Selection pathway has limited the number of prequalification processes over the past two years, resulting in very long processing times. In addition, to secure a project that can be incorporated into the Power Plant Business Plan (RUPTL), developers have to face specific challenges, given the lack of legal basis for partnerships between developers and PLN subsidiaries (to avoid being incorporated into the RUPTL), so only a few financial services institutions are willing to provide financial support for such projects. Implementing Regulation of the Minister of Energy and Mineral Resources No. 04/2020, as well as the ongoing drafting of the New and Renewable Energy Law, will help improve transparency and competition in the procurement process. However, the implementation and subsequent consistency of the regulation will be critical to increasing private investment in renewable energy.

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every trading period, providing granular signals about the true spatial cost of supplying electricity and the value of relieving specific network constraints. see Matthew Katzen and Gordon W. Leslie, "Siting and Operating Incentives in Electrical Networks: A Study of Mispricing in Zonal Markets," *International Journal of Industrial Organization* 94 (May 2024): 1–26, https://doi.org/10.1016/j.ijindorg.2024.103069.

Regulatory Authority in the Energy Sector to Support Sustainable Development

Rapid decarbonisation, heightened price volatility, and the imperative of universal energy access have forced lawmakers to rethink the traditional remit of energy-sector regulators. No longer confined to rate-setting and reliability oversight, modern authorities are expected to mobilise capital for low-carbon infrastructure, police complex wholesale markets, and buffer vulnerable consumers from supply shocks, all while aligning national policies with the UN 2030 Agenda for Sustainable Development, in particular SDG 7 (clean, affordable energy) and SDG 13 (climate action).[60] Against this backdrop, the institutional design of regulatory bodies and the statutory powers they wield has become a determinative factor in the pace and equity of the energy transition. This study compares five jurisdictions that together account for more than one-third of global primary-energy demand: Indonesia, the European Union, the United States, Australia, and the Republic of Korea to illuminate how different constitutional traditions reconcile independence, market liberalization, and sustainability mandates. By tracing the evolution of each regulator's legal foundation, enforcement toolkit, and crisis-management authority, the discussion highlights best-practice principles that can guide future reforms in resource-rich emerging economies.

Indonesia's energy-sector architecture is governed principally by Law No. 30 of 2007 on Energy, which designates the National Energy Council (*Dewan Energi Nasional* – DEN) as the State's supreme, cross-sectoral coordinating organ.[61] Also, the statute provides that the President serves ex officio as Chair, the Vice-President as Vice-Chair, and the Minister of Energy and Mineral Resources as Daily (executive) Chair. The Council is further composed of seven additional ministers: Finance, Industry, Environment and Forestry, Transportation, National Development Planning (BAPPENAS), State-Owned Enterprise Affairs, and Research & Innovation, and eight voting members drawn from academia, business, consumer advocacy groups,

[60] Apriliyanti et al., "To Reform or Not Reform? Competing Energy Transition Perspectives on Indonesia's Monopoly Electricity Supplier Perusahaan Listrik Negara (PLN)."

[61] Law No. 30 of 2007 on Energy.

and civil-society organisations, thereby securing both inter-ministerial coherence and stakeholder participation.[62]

Statutorily, DEN must: (i) draft the National Energy Policy (*Kebijakan Energi Nasional, KEN*) for parliamentary approval; (ii) adopt the National General Energy Plan (RUEN), translating that policy into sectoral targets; (iii) issue binding measures during energy crises; and (iv) supervise the implementation of energy rules across ministries and local governments.[63] The current policy instrument, Presidential Regulation No. 22 of 2017 on the National Energy Policy, codifies a minimum renewable-energy share of 23 per cent in the national primary-energy mix by 2025, expressly aligning Indonesia's domestic mandate with Target 7.2 of the UN Sustainable Development Goals.

The European Union's Fourth Energy Package (Directive 2019/944) requires every Member State to entrust an energy-regulatory authority that is "legally distinct and functionally independent" from both government and industry. National regulators co-operate through the Agency for the Co-operation of Energy Regulators (ACER), sharing market data in accordance with REMIT (Regulation 1227/2011) and insider-trading and transparency rules. They possess the power to issue binding decisions, impose administrative fines, order divestitures, and compel disclosure, all to promote competition, system security, and the completion of a single European wholesale market that supports the bloc's "Fit-for-55" climate targets (2021 to 2024).

Established pursuant to §§ 701-705 of the United States Department of Energy Organization Act of 1977, the Federal Energy Regulatory Commission (FERC) operates as an independent, self-funded regulator: its annual appropriation is recovered entirely through user fees assessed on the entities it oversees.[64] FERC's jurisdiction extends to (i) the approval of interstate transmission tariffs and wholesale-power sales under Part II of the Federal Power Act (FPA); (ii) the siting and certification of natural-gas pipelines and LNG export terminals under Sections 3

[62] Presidential Regulation (Perpres) No. 22 of 2017 on the National Energy General Plan (2017).
[63] Presidential Regulation (Perpres) No. 22 of 2017 on the National Energy General Plan.
[64] Presidential Regulation (Perpres) No. 22 of 2017 on the National Energy General Plan.

and 7 of the Natural Gas Act (NGA); (iii) the review of mergers, acquisitions and other changes in corporate control involving jurisdictional utilities (FPA § 203); and (iv) the continuous surveillance of organised electricity markets through its Office of Enforcement, which is empowered to levy civil penalties of up to USD 1 million per violation per day.[65]

Congress has charged the Commission with ensuring that all rates, terms, and conditions under its remit are "just and reasonable" and that the bulk-power system is operated in a "safe, reliable, and secure" manner.[66] Those twin mandates have broadened markedly over the past two decades. Since the Energy Policy Act of 2005, FERC has overseen mandatory reliability standards drafted by the North American Electric Reliability Corporation (NERC) that now include cybersecurity protocols for critical energy infrastructure. More recently, through Order 1000 (2011) and its progeny, the Commission has required regional transmission organisations to allocate the costs of climate-resilient network upgrades on a beneficiary-pays basis, thereby embedding decarbonisation and system-hardening considerations into the economics of interstate grid expansion. In short, FERC exemplifies how an independent energy regulator can evolve from a conventional price-setter into a multifaceted guardian of market integrity, infrastructural resilience, and long-term sustainability.

The Australian Energy Regulator (AER) operates under the Competition and Consumer Act 2010 and administers the National Electricity Law, the National Gas Law, and the Retail Law for all jurisdictions except Western Australia. Its 2024-2029 Strategic Plan identifies four priorities: shielding vulnerable customers, incentivising monopoly networks to become neutral service platforms, policing competitive markets through data-driven monitoring and enforcement, and providing evidence-based advice to support the energy transition.[67] AER price determinations now

[65] Federal Power Act, Pub. L. Nos. 66–280, 16 United States Code (1920), https://www.law.cornell.edu/uscode/text/16/791a.

[66] Federal Power Act Art 15-16.

[67] AER, *AER Strategic Plan 2020–2025: Our Commitment to Make Energy Consumers Better Off, Now and in the Future* (Australian Energy Regulator, 2020), 34, https://www.aer.gov.au/publications/corporate-documents/aer-strategic-plan-2020-2025.

include performance incentives for hosting distributed energy resources and reducing line losses, directly linking economic regulation to decarbonisation outcomes.

Reformed under the Electricity Business Act (2021 amendment), the Electricity Regulatory Commission (ERC) functions as an independent collegial body housed in the Ministry of Trade, Industry, and Energy in South Korea. The ERC licenses generators and retailers, approves tariffs, arbitrates disputes, and investigates abuse of dominance or collusion in the Korea Power Exchange's spot market. Its statutory objectives, fair competition, consumer protection, and dispute resolution are reinforced by Korea's 2050 Carbon-Neutral Strategy, which tasks the ERC with creating price signals that accelerate renewable integration while preventing market power abuse.

To conclude, this comparative review shows that a country's energy-transition effort rises or falls on the strength of its regulatory framework. When an energy regulator enjoys statutory independence, holds rule-making powers that cut across ministerial lines, and is equipped with real-time market-monitoring and emergency powers, as is the case with Europe's ACER and, increasingly, Australia's AER competition policy and climate policy, they work together instead of at cross-purposes. Indonesia's National Energy Council demonstrates that even a hybrid, multi-stakeholder body in an emerging, resource-rich economy can translate the Sustainable Development Goals into binding national programmes, so long as its recommendations are given effect through enforceable executive instruments. By contrast, weak autonomy, limited access to data, or insufficient consumer-protection mandates, as illustrated by permitting delays in the United States and information gaps in Korea, stall investment, distort price signals, and undermine public confidence. The key takeaway is therefore straightforward: any liberalized energy market that aspires to be both efficient and sustainable must rest on three non-negotiable pillars: independence, transparency, and an explicit commitment to the SDGs. Further scholarship should explore how these pillars can be adapted to other emerging jurisdictions, for it is in those settings that the battle for a net-zero future will ultimately be decided.

A complementary perspective is provided by Islamic public law doctrine, which has long recognised the State's duty to secure both economic justice (*ʿadl*) and the common good (*maṣlaḥah*). Classical jurists vested the ḥisbah authority with powers strikingly similar to those exercised today by modern energy regulators: policing fraud, preventing hoarding and price manipulation (*iḥtikār*), and intervening in essential-commodity markets when the public interest so required.[68] Within the framework of *Maqāṣid al-Sharīʿah*, two higher objectives, *ḥifẓ al-māl* (protection of wealth) and *ḥifẓ al-biʾah* (protection of the environment, now widely recognised as an extension of *ḥifẓ al-nafs*), map neatly onto the economic-efficiency and sustainability pillars embedded in SDG 7 and SDG 13. Accordingly, an energy-regulatory design that guarantees independence, transparency, and environmental stewardship does not merely satisfy contemporary good-governance norms; it also fulfils a classical Islamic requirement that the ruler "remove harm and secure benefit" (*jalb al-maṣlaḥah wa darʾ al-mafsadah*) for the community.

Indonesia's own constitutional jurisprudence reflects this convergence. The Constitutional Court, Decision No. 001-021-022/PUU-I/2003, invoked *maqāṣid* reasoning when it ruled that State "control" (*penguasaan*) over natural resources may legitimately be exercised through regulation and public supervision rather than exclusive State ownership, provided the outcome maximises the welfare of the people (*kemakmuran rakyat*). In the energy domain, the National Energy Council's renewable-energy targets and its crisis-intervention powers can therefore be understood as contemporary extensions of the *ḥisbah* function: they temper market excess, safeguard vulnerable consumers, and preserve environmental capital for future generations.

CONCLUSION

The doctrinal analysis in this study demonstrates that Indonesia's energy legal framework, based on a combination of energy sector laws, Law No. 5 of 1999, and the

[68] Frank E. Vogel and Samuel L. Hayes, review of *Islamic Law and Finance; Religion, Risk, and Return*, by Kamal M. Amjad Mian, *Journal of Law and Religion* 15, no. 1/2 (2000): 475, https://doi.org/10.2307/1051550.

Financial Services Authority (OJK)'s sustainable finance regulations, does not yet fully provide the pro-competition conditions necessary to mobilize private capital toward achieving the 23% renewable energy (RE) mix target by 2025. PLN's monopsony power in electricity procurement, the "single business entity" clause in gas transportation, and non-transparent RE procurement procedures create entry barriers, increase project risk premiums, and ultimately undermine the effectiveness of the Sustainable Finance Roadmaps. Cases handled by the Business Competition Supervisory Commission (KPPU) ranging from PLN Pekanbaru's service connection practices to the EPC cartel in the Sulawesi Gas Power Plant tender show that ex-post antitrust instruments can indeed address dominant and collusive behavior; however, without complementary ex-ante measures such as open network access clauses, competitive tenders, and the integration of green taxonomy criteria into licensing post-facto enforcement alone is insufficient to close regulatory gaps that distort markets.

The proposed reforms including legislative amendments to separate commercial and network functions, strengthened transparency obligations regarding tariffs, and the alignment of energy licensing with ESG criteria not only align with SDG 7 and SDG 13 targets, but are also consistent with the maṣlaḥah mandate in the doctrine of *maqāṣid al-Sharīʿah* and the Constitutional Court's Decision No. 001-021-022/PUU-I/2003, which emphasizes state control through regulation and competition oversight. By reinforcing three pillars: independence, transparency, and sustainability orientation, Indonesia can bridge the goals of energy sovereignty, economic efficiency, and intergenerational equity. Future research should examine how these principles can be consistently applied in post-2025 legislative processes, while enhancing the institutional capacities of the KPPU and the National Energy Council (DEN) as key guardians of a just energy transition.

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