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A JURIDICAL AND PHILOSOPHICAL ANALYSIS OF A NEW INSTITUTIONAL FRAMEWORK TO REPLACE SKK MIGAS IN THE IMPLEMENTATION OF ARTICLE 33 OF THE 1945 CONSTITUTION AND RENEWABLE ENERGY

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Abstract

The oil and gas (Migas) sector holds a strategic role in Indonesia's economy, serving both as a significant source of state revenue and as the country's primary energy supply. However, national oil and gas governance continues to face major challenges, particularly regarding institutional arrangements and the effectiveness of existing supervisory mechanisms. The Constitutional Court (Mahkamah Konstitusi) Decision No. 36/PUU-X/2012 ("MK Decision No. 36") which dissolved the Executive Agency for Upstream Oil and Gas Business Activities (BP Migas), reaffirmed the need for the establishment of a new institution that is more in line with the mandate of Article 33 of the 1945 Constitution of the Republic of Indonesia. To date, the Special Task Force for Upstream Oil and Gas Business Activities (SKK Migas), which replaced BP Migas, remains a provisional entity without a permanent statutory basis. This study aims to conduct a juridical and philosophical analysis of the potential form of a new institutional framework to replace SKK Migas. It adopts an approach grounded in economic law theories, including the Economic Efficiency Theory of Richard A. Posner, the Pure Theory of Law by Hans Kelsen, the Theory of Distributive Justice by John Rawls, John Austin's Theory of Legal Validity, The Concept of Law of H.L.A. Hart, and other relevant legal theories. Through this theoretical lens, the research explores institutional models that are more effective, efficient, transparent, accountable, and oriented toward public welfare in the governance of the national oil and gas sector. The findings indicate: (1) The draft of Oil and Gas Law (RUU Migas) must stipulate a legally stronger institutional framework that integrates both supervisory and operational functions through transparent and accountable mechanisms; (2) The draft legislation should incorporate the principles of renewable energy (EBT) and the Sustainable Development Goals (SDGs), while remaining grounded in the mandate of Article 33 paragraphs (2) and (3) of the 1945 Constitution as the foundation of the State. Accordingly, this study recommends that oil and gas regulation should not only focus on enhancing investment but also promote transparency, accountability, and energy sustainability—ensuring that national oil and gas policy aligns with the constitutional mandate of Article 33 and international standards in support of a sustainable energy transition.

Keywords: ***A Juridical, Philosophical, Skk Migas, Article 33 Of The 1945 And Renewable Energy***

I. Introduction

Migas sector is one of the principal pillars of the Indonesian economy, contributing significantly to state revenues. In 2024, the Non-Tax State Revenue (PNBP) from the oil and gas sector reached IDR 110.9 trillion, forming a substantial portion of the total PNBP from the Energy and Mineral Resources (ESDM) sector. This reflects that the oil and gas subsector contributed approximately 41% of the total PNBP of the ESDM sector. Meanwhile, the oil and gas subsector also accounted for investment realisation amounting to USD 17.5 billion (ESDM 2024). For the year 2025, the Ministry of ESDM has set a target of IDR 112.2 trillion for PNBP from the Migas sector, representing a projected increase of 1.8% compared to the 2024 target. This projection is based on an expected increase in oil and gas lifting as well as an estimated crude oil price ranging between USD 75 and 85 per barrel (Ruang Energi 2024). Nevertheless, the governance of this sector continues to face various regulatory challenges, particularly concerning the legal validity of SKK Migas. This concern has been further exacerbated by the recent "fuel scandal" (skandal bensin oplosan), which highlighted the lack of accountable transparency in the management of Indonesia's oil and gas resources. From a legal perspective, the oil and gas sector in Indonesia is ruled in Article 33 paragraphs (2) and (3) of the 1945 Constitution, which mandates that the land, waters, and natural resources therein shall be controlled by the State and utilised for the greatest prosperity of the people. The implementation of this constitutional mandate has undergone significant developments, particularly following the

MK Decision No. 36 which dissolved BP Migas. As a replacement, the government established SKK Migas through Presidential Regulation No. 09 of 2013 ("Perpres 09/13"). However, this entity lacks a legal foundation equivalent to that of a state-owned enterprise, hence creating legal uncertainty in the governance of the oil and gas sector. The urgency of this research is further stressed by the emergence of a major governance fuel scandal which resulted in state losses estimated at IDR 193.7 trillion. This case reveals systemic weaknesses in supervision and transparency, and strongly indicates the need for a thorough revision of oil and gas regulations to prevent corrupt practices detrimental to both the State and the public interest. Accordingly, this research aims to analyse and propose specific improvements to oil and gas governance. The following section outlines the research gap and the novelty elements of this study:

1. Research Gaps

a. This study addresses the gap related to the need for a more legally robust institutional framework for oil and gas governance, examined through both juridical-philosophical and juridical-empirical lenses.
b. This study explores how the draft Oil and Gas Law (RUU Migas) can accommodate principles of clean energy, climate action, and strong institutions, in accordance with Article 33 of the 1945 Constitution.
c. This study identifies regulatory gaps related to the prevention of corruption and proposes mechanisms to enhance transparency and accountability, including the application of blockchain technology and the Internet of Things (IoT).
d. This study compares governance systems from various jurisdictions and theoretical perspectives to identify the most suitable institutional design.

2. Novelty (Innovative Contributions)

a. This study proposes a concrete solution in the form of establishing a Specific State-Owned Enterprise (BUMN) as a replacement for SKK Migas. The proposed entity would be supported by a strong legal foundation and would integrate both supervisory and operational functions within a transparent and accountable mechanism. The novelty lies in providing a comparative analysis of alternative legal forms, such as Public Service Agencies (Badan Layanan Umum or BLU) and Special State-Owned Corporations (Perusahaan Negara Khusus or PNK).
b. This study presents an approach by recommending the integration of SDG principles into RUU Migas.
c. This research adopts a philosophical approach by applying legal theories such as the Principle of Economic Efficiency (Richard A. Posner), the Theory of Distributive Justice (John Rawls), the Principle of Transparency (Joseph Stiglitz), and other relevant theories.
d. This study compares oil and gas governance models from various countries—including Norway, Brazil, Libya, Saudi Arabia, and Malaysia - to identify best practices that can be adopted. The comparative approach provides new perspectives in the institutional design of Indonesia's oil and gas governance framework.

Accordingly, the objective of this research is to offer academic contributions through policy recommendations aimed at strengthening oil and gas governance in Indonesia, in order to enhance efficiency, transparency, and investment attractiveness in the sector—while remaining aligned with the principles of renewable energy.

II. Research Objectives

This study aims to: (i) Analyse the urgency of establishing a new legal entity to replace SKK Migas, with a stronger legal foundation and in compliance with MK Decision No. 36, in order to optimise oil and gas sector governance in accordance with Article 33 of the 1945 Constitution and the principles of renewable energy; (ii) Examine the legal and policy aspects of the energy transition from fossil fuels to renewables, and assess how RUU Migas can accommodate sustainability principles and reduce dependence on fossil fuels; and (iii) Provide recommendations for improving oil and gas governance in Indonesia, including regulatory models, a more effective and transparent legal entity design, and strategies for inclusive and equitable implementation of energy policy.

III. Research Methodology

This research employs a juridical-philosophical and juridical-empirical approach, with the following methodological framework:

1. Juridical-Philosophical Approach

a. Examine the existing legislation governing oil and gas management in Indonesia, including the Oil and Gas Law, MK Decision No. 36, RUU Migas and other relevant legal instruments;
b. Analyse legal theories, particularly legal positivism, economic analysis of law, the theory of distributive justice, and other relevant legal doctrines and principles, in order to assess the ideal legal form for oil and gas governance;
c. Conduct a comparative analysis of alternative legal entities to replace SKK Migas, to identify the most suitable institutional model in line with MK Decision No. 36.

2. Juridical-Empirical Approach

a. Examine Mark C. Thurber's analysis of two-legged and three-legged oil and gas governance systems and compare them with the Indonesian model and international practices, such as those in Norway;
b. Analyse the impact of oil and gas policies on public welfare, including within the framework of the Sustainable Development Goals (SDGs) and the transition to renewable energy;
c. Review corruption cases in oil and gas governance, such as the fuel scandal (kasus bensin oplosan), to identify regulatory and oversight system weaknesses.

Through this multi-faceted approach, the research seeks to provide concrete solutions for the formulation of effective and sustainable Migas regulations in Indonesia.

IV. Discussion

1. Governance of Indonesia's Oil and Gas Sector

One of the fundamental problems in Indonesia's oil and gas sector is the prevailing legal uncertainty caused by the absence of an enacted Oil and Gas Bill (RUU Migas), which has resulted in the replacement legal entity for SKK Migas remaining in limbo. This is evident from MK Decision No. 36, which states that: "The functions and duties of the Oil and Gas Implementing Body shall be carried out by the Government, i.e., the relevant Ministry, until a new law governing the matter is enacted". This Constitutional Court ruling implicitly mandates that a legal entity replacing BP Migas must be established through legislation. Consequently, Perpres No. 09/13, which forms the legal basis for SKK Migas, fails to meet this requirement. Therefore, SKK Migas is not regarded as an independent legal entity, resulting in limited authority in managing the oil and gas industry and exposure to legal uncertainties and potential conflicts of interest. Without legal certainty, investment in the oil and gas sector is likely to continue declining due to public distrust in the sector's governance. This may lead to Indonesia losing its competitiveness in the global energy market. In line with the MK's decision, it is therefore necessary to establish a state-owned legal entity with stronger authority and a clear legal basis to manage the oil and gas sector. But what legal form is most appropriate to replace SKK Migas? Before answering that, it is necessary to first examine what constitutes good governance in the oil and gas sector. This step is important to ensure that the proposed legal entity aligns with the principles of ideal oil and gas governance.

In this regard, Mark C. Thurber identifies two models of oil and gas governance typically found across different countries: the two-legged governance model and the three-legged governance model (Indonesian Parliamentary Center 2018). In the two-legged model, the state combines regulatory and commercial functions. This means that a single government body or ministry is responsible for both regulating and executing activities in the oil and gas sector. This model allows for strong governmental control, often resulting in greater efficiency in resource management. An example of this model is Libya's National Oil Corporation (NOC). As a fully state-owned entity, NOC dominates Libya's oil industry through a number of subsidiaries, collectively accounting for approximately 70% of the country's oil production (Libya's National Oil n.d.) (Devex.Com n.d.). In contrast, the three-legged governance model separates three main functions: (i) policy-making, (ii) regulatory oversight, and (iii) commercial operations. This functional separation enables different entities to manage each function independently, thereby improving transparency and accountability. Countries applying this model include Brazil, Algeria, Mexico, Nigeria, Indonesia, and Norway. According to Thurber, only two countries, Norway and Brazil, successfully implemented this three-pronged separation and achieved positive performance in their upstream oil and gas sectors. Interestingly, Saudi Arabia and Malaysia which do not separate these functions, have also demonstrated strong performance (Indonesian Parliamentary Center 2018). Overall, Thurber's findings in his journal "Exporting the

Norwegian Model: The Effect of Administrative Design on Oil Sector Performance (Thurber 2011) reveal that countries such as Norway, Brazil, Saudi Arabia, Angola and Malaysia, still perform well in upstream oil and gas sectors, despite their adoption of different governance models. This suggests that oil and gas governance can only be effective and efficient when supported by strong governmental commitment, both financial and non-financial, toward exploration and production.

For the record, Indonesia has also provided substantial support for oil and gas production. Over the past five years, exploration has been conducted on 130 wells, 11 regional studies have been carried out, and more than 600 geological and geophysical studies have been completed by the government and relevant contractors (Antara News 2024) (Porto News 2024). SKK Migas has also set a 2025 production target of 1.61 million barrels of oil equivalent per day. The government has also introduced a number of investment incentives, such as extended exploration periods, tenders without joint studies, minimal signature bonuses, investment credits, First Tranche Petroleum (FTP) shareability, and other fiscal stimuli (Kementrian ESDM 2024). However, these production ambitions continue to be hindered by classic problems such as permit issues, regulatory overlaps, land compensation disputes and/or land use conflicts (Kementrian ESDM 2014). Faisal Basri, Indonesian's economic expert who was appointed by Ministry of ESDM as a Head of Task Force for Oil and Gas Law Reformation in 2014, also illustrates how complex the permitting process can be in the field (Basri 2015).

(pic 1: steps of getting permits in Indonesia)

Furthermore, investment in Indonesia's oil and gas sector is also constrained by the decline in global oil prices and the presence of inflexible regulations, both of which act as major impediments. The increasingly complex location of exploration activities, which require advanced technologies and significant capital outlays, further hinders the achievement of production targets. This is understandable, considering the use of modern technologies such as Enhanced Oil Recovery (EOR) and Improved Oil Recovery (IOR) requires masive investment and a robust regulatory framework to support them (Indonesian Petroleum Association 2025). These compounding factors place Indonesia at risk of an energy crisis. According to Thurber, Norway is not only has an efficient upstream oil and gas sector but also exhibits exemplary management of its oil revenues. In 1990, the Norwegian government established the Petroleum Fund of Norway (PFN), which has since been renamed the Government Pension Fund – Global (Norges Bank Investment 2023). The Norwegian government and parliament recognized early on that oil revenues would eventually decline or become volatile due to price fluctuations. Thus, the creation of the PFN was a forward-looking measure to mitigate such adverse impacts. This contrasts sharply with the case in Indonesia, where no such anticipatory policy has been implemented. Indonesia is still grappling with more immediate concernssuch as whether the supply can meet national demand over the next several years. There are no serious and concrete efforts toward developing alternative energy innovations as a preventive strategy against an energy crisis that is in line with the renewable energy policies. In fact, Indonesia's goverment still delaying in passing the draft of Oil and Gas Bill although it has been delayed since 2012.

Therefore, in light of the various challenges and the potential for an energy crisis, clearly a strategic measures must be adopted to improve Indonesia's oil and gas governance. At the very least, this can begin with the establishment of a new legal entity to replace SKK Migas, that is stronger basis, more credible, accountable, and compliant with the SDGs to confront the energy crisis effectively. Interesting to know that the research of Mark C. Thurber indicates that Indonesia's oil and gas sector would perform more effectively under a two-legged governance system with the NOC-Dominated Model (Silaban and Martawardaya 2019). As previously discussed, the two-legged governance system integrates both regulatory and commercial functions into a single body or national company. The version of this system refers specifically to placing the National Oil Company as the main operator and decision-maker in the upstream oil and gas sector (Chandranegara and Hoesen 2019). However, it is worth noting that actually, Indonesia has historically employed both the NOC-Dominated Model and the implementation of this model has faces substantial challenges. Why? Before answering this question, the following

are the distinctions between the NOC-Dominated Model and other models such as the Ministry-Dominated Model or Independent Body Regulator Model (CNBC Indonesia 2022):

a. Characteristics NOC-Dominated Model (as recommended by Thurber):
- NOC acts as both the operator and regulator of the oil and gas sector, under Pertamina;
- Consolidates policy-making, regulatory and operational functions under a single entity;
- Implemented in countries such as Malaysia (Petronas) and Saudi Arabia (Aramco);
- Advantages include efficiency in decision-making due to minimal bureaucracy and full state control via the NOC;
- Disadvantages include a high risk of conflicts of interest between the roles of regulator and operator, and a potential dependency on the institutional capacity of the NOC.

b. Characteristics Ministry-Dominated Model (similar to SKK Migas arrangement):
- Oil and gas governance is directly managed by a ministerial authority. A comparable example is Venezuela which under its Ministry of Petroleum;
- Advantages include centralized decision-making aligned with policy objectives;
- Disadvantages are slow bureaucratic process and vulnerability to political interference.

c. Characteristics Separation of Powers / Independent Body Regulator Model:
- An independent regulatory body (neither ministerial nor NOC-based) oversees the oil and gas sector. An example is Brazil's ANP (Agência Nacional do Petróleo);
- Advantages include high levels of transparency and accountability, and increased investment certainty due to limited political intervention;
- Disadvantages include the requirement for a strong institutional capacity to ensure proper oversight and implementation.

From the above comparison, it may be concluded that Thurber's proposed NOC-Dominated Model is no longer relevant for Indonesia. This is because Pertamina's authority as a dominant NOC was formally revoked following the replacement of Law No. 8 of 1971 on the State Oil and Gas Mining Company by the Oil and Gas Law year 2001. The enactment of the Oil and Gas Law was a deliberate governmental effort to liberalize the oil and gas sector and create a more open market structure. Consequently, Pertamina was transformed into merely one of several state-owned contractors, treated equally with private and foreign contractors. In contrast, under the previous Pertamina Law regime, Pertamina had successfully positioned itself as the world's largest LNG exporter and its oil production rose significantly from 740,000 barrels per day in 1969 to 1,620,000 barrels per day in 1979 (Handayani, et al. 2017).

NOC dominated is also no longer relevant because MK Decision No. 36 has explicitly stated that BP Migas's role as a contractor has undermined the constitutional position of the State in fulfilling its mandate under the Article 33 of the 1945 Constitution that needs to promote the welfare of the people. Hence, by acting simultaneously as regulator and operator that possess full authority to formulate and direct oil and gas governance regulations, NOC cannot place itself on equal footing with parties which supposed to be regulated. This dual role creates a conflict of interest and creates a legal violation. Furthermore, MK held that legal status of any entity managing natural resources must take the form of a State-Owned Enterprise (SOE) (Hukum Online 2012). This MK Decision aligns with the juris gestiones doctrine, which holds that when a State engages in commercial activities, it is deemed to have waived its sovereign immunity. This principle is necessary to ensure the equality of the parties in contractual relations. By acting as a contractor, the State assumed to be a dualistic role - both as a public authority and as a private legal entity – and thus compromising its impartiality. Overall, the MK Decision underscores the need for regulatory reform in accordance with legal developments and societal needs, particularly regarding the governance of oil and gas resources (Bisman Bhaktiar 2021). In accordance with this ruling, the Court mandated the Government to establish a State-Owned Enterprise / SOE (Badan Usaha Milik Negara / BUMN) that is independent and specifically tasked with managing and regulating upstream oil and gas activities. Moreover, the State should not assume a position equal to investors within the framework of a Production Sharing Contract (PSC) (Niken 2015). From this explanations, it is evident that the dual-function governance model (the two-legged system) is not applicable in the Indonesian context.

However, SKK Migas have three proposals that considered itselfs as a three-legged model as a possible replacement for its current role as the upstream regulator, as follows:

1. Ministry Dominated, in which the regulatory body operates under a line Ministry;
2. NOC Dominated Model, where the agency would be housed under Pertamina;
3. Independent Body Regulator Model, that refers to a specialized independent agency with full regulatory authority (Ruang Energi 2022).

Unfortunalety, none of those proposals above have seen any significant progress to date. But Faisal Basri (Basri 2015) has elaborated on the strengths and weaknesses of those each proposed legal framework as follows:

a. Upstream oil and gas operations conducted by the Ministry of ESDM:

(i) Advantages: Operates as a public institution with authority to issue legally binding regulations and licenses; and could be an integral part of the executive branch, that exercising the five core functions of public administration (policy – beleid, governance – bestuurdaad, regulation – regelend, management – beheerdaad, and supervision – toezicht houdensdaad).

(ii) Disadvantages: conflicting the business functions with the State finances, could be vulnerable to any criminalization; inefficient decision-making for commercial activities; difficulties in coordination with other ministries and institutions that also hold regulatory authority under their respective mandates; and the State becomes susceptible to civil litigation or arbitration in cases of dispute over interpretation, execution, or implementation of any contracts.

b. Upstream oil and gas operations conducted by SOE such as Pertamina:

(i) Advantages: Capable of acting as both a regulator and business operator; flexible in managing upstream asset portfolios; possesses substantial asset capitalization, enhancing its leverage in international markets; holds key government-granted privileges in the upstream sector; and serves as the backbone of national natural resource management in oil and gas.

(ii) Disadvantages: Risk of conflict of interest in policy and business decision-making; tendency for rent-seeking behavior by subcontracting work areas for fees rather than operating them directly; exposure to high upstream business risks; State-conferred privileges may leak to foreign or domestic private entities through subsidiaries or business arrangements; Corporate objectives may not align national policy objectives.

c. Upstream oil and gas operations conducted by a Specialized BUMN:

(i) Advantages: Exercises full authority in managing Production Sharing Contracts (PSC); Controls upstream business portfolios in accordance with a balanced priority between commercial, business, and policy considerations; Acts as the primary entity accountable for upstream performance; Clear demarcation between public financial oversight and commercial operational authority.

(ii) Disadvantages: Jurisdictional overlaps with other public institutions or regional governments; Vulnerable to nationalist, neoliberal, or political opposition to commercial policy decisions; Requires strong institutional design, including human resources, infrastructure, legal authority, and financial support; Must be globally competent and recognized as a world-class institution; Prone to criminalization if not formally acknowledged by other State agencies, including law enforcement.

From the above explanation, it becomes evident that the NOC-Dominated Model is not suitable for Indonesia due to the inherent conflicts of interest. Thus, it can be concluded that the appropriate oil and gas governance structure for Indonesia is a combination of the Ministry-Dominated Model and the Independent Regulatory Body, that is placed under a three legged governance system. This conclusion is based on MK Decision No. 36, which declared the following principles:

- State control is interpreted as a collective mandate from the people to the State to implement policies (beleid), administrative actions (bestuursdaad), regulation (regelendaad), management (beheersdaad), and supervision (toezichthoudensdaad);
- The administrative function (bestuursdaad) is to be carried out by the Government through the authority to issue and revoke permits (vergunning), licenses (licentie), and concessions (concessie);
- The regulatory function (regelendaad) is to be exercised through the legislative authority of the House of Representatives (DPR) jointly with the Government, and through executive regulations issued by the Government;
- The management function (beheersdaad) is implemented through shareholding mechanisms and/or institutional instruments through which the State, i.e., the Government, exercises control over natural resource wealth for the greatest prosperity of the people;

- Therefore, the supervisory function (toezichthoudensdaad) is carried out by the State, i.e., the Government, to oversee and control the implementation of the State's authority over natural resources to ensure that it is used solely for the benefit of all the people.

Based on the above, it is apparent that SKK Migas should be replaced by an institution under the Ministry, and it must be established by highest form of law through legislation. The contractor function shall remain with Pertamina to avoid any conflicts of business and regulatory roles, while the State shall retain its role as policy-maker.

2. Oil and Gas Governance from a Juridical-Philosophical Perspective

According to Mark C. Thurber, the choice of governance model must consider the level of political competition, institutional quality, and human resource capacity within a country. In nations with high political competition, the separation of functions into three independent entities will yield optimal benefits only if strong institutional and human resource capacity is already in place (Thurber 2011). However, this perspective diverges from several legal philosophers. Based on the legal positivism theory of John Austin (Austin 1995) and Herbert Lionel Adolphus (HLA) Hart (Hart 2012), the foundational element of any governance model - whether dual or tripartite - must be the validity and legal legitimacy of the law. Therefore, the first and foremost step the Government must undertake is the enactment of a new Oil and Gas Law Bill (RUU Migas) as the true legal foundation for oil and gas governance. This step directly relates to the establishment of a new legal entity to replace SKK Migas, which must first possess a solid legal basis within the Indonesian legal system. Hence, the enactment of the RUU Migas, under this theory, is a prerequisite for the legal creation of an SKK Migas replacement. A Presidential Regulation (Perpres), let alone a Ministerial Regulation (PerMen), is deemed insufficient. John Austin reinforces this view by asserting that law must emanate from a sovereign command, and thus all state instruments must derive from legislation enacted by the DPR and the President. Furthermore, the resulting instrument must carry legal authority and the capacity to impose sanctions, especially in the oil and gas sector. Therefore, the most appropriate legal entity to replace SKK Migas would be one that can both regulate and manage oil and gas business professionally, while remaining subject to the law. To prevent a repetition of SKK Migas' legal ambiguity, this new entity must be established by statute (undang-undang) rather than by subordinate legislation. Austin's theory also emphasizes that an entity is only considered legally valid if it possesses the authority's ability to impose sanctions. Should its authority be limited to administrative policy lacking binding statutory support, then its legal existence would not be fully valid. Based on this framework, the two legged governance model seems more suitable for Indonesia's oil and gas sector, as this model affords the State direct control over policy and contractual relations with investors. A tripartite system might be considered overly complex and may dilute the State's sovereign control over natural resources. In Austin's view, the State must exercise full sovereignty - primarily through ministerial control - so the addition of another entity (SKK Migas' replacement) could weaken the State's direct oversight.

Conversely, H.L.A. Hart asserts that the law must contain a system of primary rules (i.e., rights and obligations in resource governance) and secondary rules, consisting of: (i) a rule of recognition, (ii) a rule of change, and (iii) a rule of adjudication. Based on this theory, the new legal entity must not only be established by statute but also must embody primary legal rules, such as ruling of any contracts, tax regulations, and oil and gas distribution mechanisms. Hart argues that a regulator must possess clear legal authority to bind any entity in the oil and gas industry. Hence, according the rule of change's perspective, the entity must have legal mechanisms to revise policies or regulations as necessary to remain responsive and adaptive. And under the rule of adjudication's perspective, the entity must also be empowered to resolve disputes in oil and gas management, whether through courts or arbitration. Thus, based on Hart's analysis, the three legged governance model seems to be more suitable, as it delineates roles clearly and reduces legal uncertainty. The Government would remain the policy-maker, the SKK Migas replacement would serve as the regulator, and Pertamina would act as the contractor. This suggests that the ideal legal entity should possess legal authority to regulate, amend, and enforce regulations with clearly defined legal mechanisms.

John Rawls' Theory of Justice has also offers valuable insights. His central principle, "justice as fairness", emphasizes two core ideas: (i) equal liberty for all individuals, and (ii) socio-economic inequalities are permissible only if they benefit the least advantaged (Distributive Justice Principle) (Stanford Encyclopedia of Philosophy 2020) (Rawls 1971). Applied to oil and gas governance, the three legged system seems inherently more equitable, as it allows the State and the SKK Migas successor to ensure the revenues do not disproportionately benefit private entities, but are also distributed for the greater public good. A two legged system (i.e., the State and the contractor) poses the risk of inequality in resource distribution. Meanwhile from the perspective of Richard A. Posner (Posner 2007) (Dirjen Kemenkeu 2023), law must be evaluated based on economic efficiency, and legal decisions must aim to maximize overall wealth. Applying to this view, the implication for oil and gas governance that seems suited is

two legged system. A direct partnership between the State and private contractors would likely encourage faster investment and reduce bureaucratic delays. A Special BUMN could hinder efficiency due to political influence, bureaucratic obstacles, or operational inefficiencies. Therefore, Posner would likely favor this two legged model - unless the Special BUMN could operate with high levels of efficiency and transparency.

3. Oil and Gas Governance from a Legal-Empirical Perspective

The governance of Migas cannot disregard the SDGs, particularly those related to renewable energy principles. Such a policy direction is imperative given that oil and gas are depletable and non-renewable resources, which derived from fossil fuels. Consequently, a prompt transition in energy policy is essential to ensure national energy security, to achieve energy sovereignty and to promote energy self-sufficiency. One of the viable strategy to realize this transition is through the development of new and renewable energy sources, including biofuel derived from agricultural products, such as crops and other plant-based materials. These initiatives necessitate long-term financial support - such as petroleum fund - and robust policy frameworks. Accordingly, RUU Migas should explicitly regulate the policy orientation and the certainty of funding allocation for the development of renewable fuel energy, as a substitute for the depleting fossil fuel reserves.

Currently, the legal framework governing the energy sector in Indonesia includes Law No. 30 of 2007 on Energy. Additionally, more specific regulations on renewable energy are embodied in Government Regulation No. 79 of 2014 on the National Energy Policy (Kebijakan Energi Nasional / KEN) and Presidential Regulation No. 22 of 2017 on the National General Energy Plan (Rencana Umum Energi Nasional / RUEN). These regulations serve as Indonesia's follow-up to the United Nations General Assembly held in September 2015, in which Indonesia ratified the global commitment to renewable energy. The principal objective of the UN is to promote societal welfare through globally targeted outcomes by 2030, including access to affordable energy, protection of natural resources, and the establishment of transparent legal institutions and resilient infrastructure (The United Nations 2015) (Pereira, Muinzer and Baker 2024). These objectives are encapsulated in the 17 SDGs, which should serve as normative guidance and be incorporated into the RUU Migas.

Thus, it is also relevant to consider the theoretical framework proposed by Herman Daly, a prominent philosopher and advocate of Ecological Economics and Sustainability (Daly 2007). Daly's core principles include: (i) Economic development must respect ecological limits (i.e., the finite nature of natural resources), and (ii) Stronger control mechanisms are necessary to oversee the exploitation of these resources. The implication of Daly's theory for oil and gas governance seems to supports the three legged system (state, BUMN, and contractor), in which BUMN will exercises a significant control over oil and gas exploitation. In contrast, a two legged system tends to prioritize profit over environmental sustainability. BUMN will enable the state to ensure that the exploitation is aligned with environmental considerations and sustainability. Nevertheless, such a model will only be effective if the BUMN possesses a robust environmental policy and is not reduced to a mere instrument of any political interest.

That Daly's insights are aligned with the views of Joseph Stiglitz, particularly his emphasis on the principles of transparency and accountability. Stiglitz argues that asymmetric information in the economy leads to corruption and policy inefficiency (Epremian, Lumaja and Burch 2016). Accordingly, transparency and accountability in the governance of natural resources are essential to prevent corruption and monopolistic practices. Under this framework, the three legged system offers more transparent and accountable governance model, as it provides clear role delineation: the state as policy-maker, BUMN as regulator and operational manager accountable to the public and Pertamina as project implementers. Conversely, a two legged system risks collusion between the state and private contractors, thereby reducing transparency in contracts and revenue-sharing arrangements.

From these various perspectives, a common conclusion may be drawn that is the governance of oil and gas and the establishment of a legal entity to replace SKK Migas must be grounded in strong legal structure and must uphold transparency and accountability to prevent corruption and to promote public welfare. These principles must be firmly embedded in RUU Migas. The absence of regulatory clarity in the current governance system not only harms public interest but also causes legal uncertainty for investors, thereby diminishing Indonesia's competitiveness in attracting investment in the energy sector. This concern excalated by a recent major incident which underscores the fragility of supervision in the oil and gas sector - known as the fuel scandal or skandal bensin oplosan. The case revealed manipulative practices in the procurement of crude oil and refined petroleum products within the Pertamina's subholding during the period 2018 to 2023. According to the Attorney General's Office, low-quality crude oil (RON 88 or RON 90) was fraudulently purchased at the price of high-quality crude (RON 92), then blended to artificially increase its octane level before being marketed as Pertamax. This process took place at the Merak Port storage terminal without proper regulatory oversight. The resulting state loss was estimated at IDR 193.7 trillion (CNBC Indonesia 2025). This case exemplifies the systemic weakness of fuel

distribution oversight in Indonesia, due in part to the ineffective monitoring roles of SKK Migas and the Ministry of ESDM. Such institutional failures that open the door to corruption and price manipulation, severely disadvantaging both the state and the public. The fact that IDR 193.7 trillion was lost due to illegal practices in fuel distribution is a clear indication of a failure oversight system. This is not merely a technical error, but a structural, systemic, and massive (terstruktur, sistematis dan masif / TSM) failure that persisted for years without any apropiate action. Without clear and decisive reform, similar cases will continue to recur, causing further leakage of state revenue that could otherwise be allocated to infrastructure development and public welfare. Therefore, it is urgent to immediately establish a new legal entity to replace SKK Migas, in order to realize a stronger, more transparent, and accountable governance framework for the oil and gas sector.

4. Blockchain and IoT

The fuel scandal occurred due to the weak supervision by all related parties in oil and gas sector. This issue had previously been raised by economist Faisal Basri, who noted that there is no guarantee that every batch of fuel dispatched from the depot corresponds to its intended specification or allocation. The statement emphasized the urgent need for a system of oversight that is rigorous, transparent, and also accountable. One viable solution to prevent such mistake is the implementation of blockchain and Internet of Things (IoT) technologies in oil and gas transactions. These technologies offer the potential for real-time monitoring of crude oil and refined fuel movement, with the express purpose of eliminating opportunities for data manipulation. Blockchain itself, is a decentralized, secure, and transparent digital ledger technology, that can be leveraged in the oil and gas sector for the following purposes:

(i) Transparent Transaction Records: All transactions related to crude oil and refined fuel distribution—such as tanker operator identification, origin and destination of shipments, and product volume—can be recorded on the blockchain. These records are immutable without the consensus of all stakeholders, thereby minimizing the risk of data manipulation (Synergy Solusi 2024);
(ii) Product Traceability: Blockchain allows real-time traceability of petroleum product origins. Each change of ownership or product status is automatically recorded at every distribution stage, offering full clarity and accountability to all stakeholders (Satria and Ruliansyah 2024);
(iii) Smart Contracts: These can be employed to automate certain processes, such as automatic payments upon verified delivery or issuing alerts when anomalies occur in the supply chain (Ahmad, et al. 2023).

Meanwhile IoT technology, could enables real-time monitoring, employs interconnected smart sensors to collect data from field equipment and operations. In the oil and gas industry, this may include:

(i) Movement Monitoring: GPS sensors on tankers and distribution vehicles allow for real-time tracking. This data can be integrated with blockchain systems to automatically record product movements (BPSDM ESDM 2024);
(ii) Operational Data Collection: IoT sensors monitor parameters such as temperature, pressure, and oil or gas volumes during transport. This ensures the product remains within specification throughout its journey (Nocola 2021);
(iii) Anomaly Detection: IoT enables detection of issues such as pipeline leaks or delivery route deviations, allowing for rapid response to minimize loss (Cloud Studio 2025).

Therefore, the combination of blockchain and IoT technologies may creates a robust system for managing the oil and gas supply chain, offering key advantages, such as:

(i) Automated Secure Data Logging: Data collected from IoT sensors is uploaded directly to the blockchain, creating a tamper-proof, secure record (Ahmad, et al. 2023);
(ii) End-to-End Transparency: Stakeholders within supply chain have access to the same data, facilitating seamless audits and increasing mutual trust (Ahmad, et al. 2023);
(iii) Strong Data Security: Through cryptographic encryption, the risks of cyber-attacks or data manipulation are significantly reduced (Linknet 2022).

Given to these benefits, it is recommended that RUU Migas shall incorporate legal provisions that mandate the adoption of such oversight technologies to reduce the risk of data manipulation, ensure supply chain transparency, enhance operational efficiency through automation, and enable early detection of issues to prevent financial and reputational losses. By embracing these technologies, the governance of Indonesia's oil and gas industry can achieve significantly higher levels of efficiency, security, and transparency - ensuring that cases such as fuel adulteration are not repeated.

5. Legal Entity Structure to Replace SKK Migas

Before discussing the appropriate legal structure to replace SKK Migas, it is essential to revisit the fundamental distinction between the two-legged system and three-legged system in the oil and gas sector. The two-legged integrates both regulatory and commercial functions within the state's role, which contravenes the MK Decision No. 36 that mandates functional separation. Therefore, the three-legged, which separates policy, regulatory and commercial functions, is more appropriate. This separation allows each function to be managed by distinct institutions, thus improving transparency and accountability in the governance of natural resources. Following to this rationale, the formation of a BUMN has been a frequently discussed option for replacing SKK Migas, as aligned with the MK Decision's directive. This BUMN would possess full authority to manage the state's oil and gas resources, operating independently but remaining under government control. It would primarily focus on upstream oil and gas activities, with greater flexibility in decision-making and contract management, while operating within the broader policy and regulatory framework set by the government to ensure that maximum benefits are returned to the state. The structural design of this BUMN must ensure operational autonomy while fulfilling national mandates and the legal foundation for establishing of such BUMN may be drawn from the following laws and regulations:

(i) Law No. 19 of 2003 on BUMN: This law permits the government to establish BUMN's that generate economic value for the state;
(ii) Law No. 22 of 2001 on Oil and Gas: While this law regulates the oil and gas sector's governance, several of its provisions have been annulled by the Constitutional Court. Therefore, the prompt enactment of a new Oil and Gas Law is imperative to provide a sound legal basis for the establishment of a replacement entity;
(iii) Government Rule: These may be issued to further define the structure, functions, and authority of the new BUMN, serving as implementing regulations to existing laws.

The formation of such an BUMN faces several challenges, especially in light of the protracted legislative process surrounding the new RUU Migas. Transitioning from SKK Migas to a Specfic BUMN will require not only legislative revisions but also a careful restructuring of contracts, cooperation agreements, and authority allocation. Nevertheless, if implemented with a strong legal framework, effective oversight, and strategic planning, this reform holds the potential to greatly enhance the efficiency and integrity of oil and gas sector governance.

To use Pertamina as a replacement for SKK Migas in managing upstream oil and gas may appear practical due to its longstanding experience. However, MK Decision No. 36 has clearly rejected it as it poses significant legal and ethical barriers, particularly due to the inherent conflict of interest, as both regulator and business operator, Pertamina would struggle to maintain neutrality in its oversight role while simultaneously competing with other contractors. Therefore, Pertamina should operate within the commercial function while a specific BUMN acts as regulator under the supervision of the Ministry of ESDM as the government's policymaking.

Alternative models to replace SKK Migas may include the establishment of an independent regulatory body, which operates under the coordination of the Ministry of ESDM. This model offers greater flexibility and impartiality in oversight, provided it adheres to prevailing oil and gas regulations. The possible forms are as follows:

a. Public Service Agency (Badan Layanan Umum / BLU)

This entity operates as a government work unit but with financial flexibility and retains the authority to act as a regulator and supervisor. The BLU model is suitable as a replacement for SKK Migas if its primary function centers on oversight and the management of state revenues. One of BLU's key advantages is its financial and operational flexibility compared to other government institutions. It is not reliant on the State Budget (APBN) for its funding, allowing it to collect and manage state revenues independently, avoiding lengthy bureaucratic procedures. BLU can operate under profit-making principles without compromising its supervisory function. However, the drawback of BLU is its status as a government entity, which means it is still subject to bureaucratic limitations. Therefore, strong governance and oversight mechanisms are essential to prevent corruption. The legal basis for establishing BLU are: (i) Law No. 1 of 2004 on State Treasury (Law 01/04); (ii) Government Regulation No. 23 of 2005 on the Financial Management of BLU (GR 23/05); (iii) Government Regulation No. 74 of 2012 on BLU Financial Flexibility (GR 74/12); (iv) Minister of Finance Regulation No. 129/PMK.05/2020 on BLU Governance (MoFR 129).

The examples of BLU in practices can be seen in Palm Oil Plantation Fund Management Agency (BPDPKS) that was established under Presidential Regulation No. 61 of 2015 on the Collection and Use of Palm Oil Plantation Funds. This agency operates under the Ministry of Finance. Its governance structure consists of a Board of Supervisors and a President Director supported by technical divisions responsible for fund management and program implementation.

Based on the above explanation, it can be concluded that a BLU could potentially replace SKK Migas. However, for a BLU to fulfill the mandate of Mk Decision No. 36, its establishment must be based on a statutory law or needs an Act of Parliament (UU).

b. Special State-Owned Enterprise (Perusahaan Negara Khusus – PNK)

PNK refers to a form of state enterprise with a professional business model, similar to Petronas (Malaysia) or Equinor (Norway). It is an entity established by the state with special characteristics that distinguish it from conventional State-Owned Enterprises or BUMN. The PNK plays a role in managing strategic national assets, particularly in the natural resource sector, requiring more flexible governance arrangements than those applicable to conventional BUMN. A PNK operates as a state-owned entity based on commercial principles while maintaining strategic objectives for the nation. Its main advantages include the ability to function as a professional oil and gas company with high efficiency, and the authority to conduct business activities while simultaneously supervising the oil and gas sector. Furthermore, PNKs tend to be more transparent due to their adherence to corporate governance principles. The main drawback of a PNK is the need for stringent regulation to prevent it from becoming a purely profit-driven entity at the expense of national interests. Therefore, a PNK must remain under government control to avoid the risk of natural resource privatization.

The legal basis for establishing a PNK may include: (i) Law No. 19 of 2003 on State-Owned Enterprises, Article 1 paragraph (2), which stipulates that BUMN may take the form of either a Persero (Limited Liability Company) or Perum (Public Corporation), in conjunction with Article 4, which provides for special treatment for BUMN in strategic sectors; (ii) Government Regulation No. 45 of 2005 on the Establishment, Management, Supervision, and Dissolution of BUMN, which regulates state company governance and allows for special status in accordance with national interest; and (iii) Government Regulation No. 72 of 2016 that amends Government Regulation No. 44 of 2005 on Procedures for State Capital Participation in BUMN and Limited Liability Companies, which allows for specially structured BUMN, including holding and sub-holding models with high managerial flexibility. Examples of PNKs in practice are as follows:

(i) Indonesia Battery Corporation (IBC), established in 2021 as a consortium of several BUMN (MIND ID, PLN, Pertamina, and Antam). IBC's core mandate is to manage the electric battery supply chain from upstream to downstream, including nickel processing, which is a key raw material for electric vehicle (EV) batteries;
(ii) PT Mineral Industri Indonesia (MIND ID), which serves as the mining BUMN holding company managing strategic mining sectors. Its legal foundation aee GR No. 45 of 2005 and Presidential Regulation No. 63 of 2019. MIND ID acts as a holding entity for many BUMN such as Antam, Bukit Asam, Freeport Indonesia, Inalum, and PT Timah.

Based on above explanations, it can be summarized that a PNK in the natural resource sector is generally established to manage strategic projects requiring more flexible governance than conventional BUMN. Although entities such as IBC, MIND ID, the State Asset Management Agency (LMAN), and the Environment Fund Management Agency (BPDLH) may not be governed by a specific law distinct from BUMN, they function in a similar capacity and serve national interests. Nevertheless, strict oversight is essential to ensure PNKs do not become vehicles for the privatization of natural resources.

From the above explanations, it leads to a fundamental question: Which legal entity form is most appropriate to replace SKK Migas, according to legal philosophers?

(i) The Economic Analysis of Law (EAL) Theory

This theory originates from utilitarianism, which emphasizes utility or benefit. Essentially, this theory views human beings as both rational and economic creatures (homo economicus). Therefore, individuals are presumed to act rationally in assessing advantages and disadvantages, weighing costs against expected outcomes. This perspective aligns with the ideas of Jeremy Bentham (1748–1832), who asserted that a legal norm can be deemed valid law if it provides the greatest utility to the greatest number of people (the greatest happiness of the greatest number) (Kemenkeu 2023) (Indrawati 2014).

Within the concept of EAL, the notion of utility entails that law must yield benefits as an economic good capable of producing gains and contributing to overall welfare. There are two principal interpretations of utility in EAL: (i) expected utility; and (ii) happiness (Sugianto 2013). According to Richard A. Posner (Posner 2007), EAL serves as a legal approach that addresses legal issues by offering distinct definitions and legal assumptions to assess satisfaction and the maximization of happiness. This approach is closely related to the concept of justice within the law. Accordingly, the law becomes an economic tool for achieving the maximization of happiness. In its implementation, three fundamental elements are examined as: value, utility, and efficiency, all of which are based on human rationality aimed at maximizing overall social utility (Sugianto 2013). Thus, from the EAL perspective,

the ideal legal form to replace SKK Migas is a Special State-Owned Enterprise (BUMN Khusus), as it is established under statute and is therefore insulated from purely political interests.

(ii) Legal Positivism Theory

Key proponents of this theory include John Austin and H.L.A. Hart. This theory emphasizes that law consists of rules established by legitimate authority and enforced by competent institutions. In the context of oil and gas contracts, it stresses how written norms - such as statutes or government regulations - constitute the formal legal basis for the validity of such contracts. It also addresses how such contracts are governed by the legal system, and how contracting parties are bound by prevailing legal norms. From the standpoint of this perspective, the legal validity of any successor to SKK Migas, must be assessed based on formal sources of law and the prevailing structure of legal authority within the national legal system. This is crucial to ensuring its legitimacy and legal authority over oil and gas governance.

Referring to John Austin, who defined law as the command of the sovereign backed by sanctions, any legal entity must derive its legitimacy from legislation enacted by the government and the parliament. Consequently, BUMN Khusus is the ideal institutional form, as it must be established through an Act of Parliament (statute of law). Therefore, in alignment with the EAL approach, cooperation with other legal enforcement institutions such as the KPK (Corruption Eradication Commission), BPK (Audit Board), and the Attorney General's Office is essential.

Meanwhile, from the perspective of H.L.A. Hart, through his theory of the Legal System and Primary - Secondary Rules, BUMN remains the most ideal institutional form, as it satisfies both primary and secondary rules. It must be able to issue or enforce rules to fulfill the primary rule function. BLU and/or PNK are less recommended because many are not statutorily mandated. And under secondary rules, Hart outlines three key components: (i) Rule of Recognition – where only BUMN is acknowledged as a legitimate legal entity because it is established by statute, which in line with MK Decision No. 36; (ii) Rule of Change - requiring the institution to have legal mechanisms to adapt or revise its regulatory framework. Here, BLU and PNK surpass BUMN as they do not require statutory amendments to implement policy changes; and (iii) Rule of Adjudication – which mandates the existence of a dispute resolution mechanism in the event of violations in oil and gas dispute, through litigation or arbitration. On this front, BUMN is superior as dispute resolution and sanction mechanisms are typically governed by statute. From this explanation, Hart's theory ultimately favors BUMN as it must be created by statute, thereby possessing binding and imperative legal force.

(iii) Pure Theory of Law

The Pure Theory of Law (Reine Rechtslehre) introduced by Hans Kelsen (1881–1973) of Austria, seeks to separate law from morality, politics, and other social factors, asserting that law must be analyzed solely through its hierarchical structure within the legal system (Asshiddiqie and Safaat 2006). Under this theory, a legal entity must be established by statute (UU) and not merely by a Presidential Regulation (Perpres). The institution must conform to the grundnorm - the fundamental norm - namely the 1945 Constitution (UUD 1945) particularly Article 33 paragraph (2 and 3) concerning state control over natural resources, as also emphasized in MK Decision No. 36. Hence, according to this perspective, the only appropriate legal entity to replace SKK Migas is BUMN that established through legislation. Other legal entities such as SKK Migas, BLU or PNK, which are based merely on executive regulations (e.g., Perpres or PerMen), lack the requisite legal standing. Furthermore, any successor institution must comply with the MK Decision No: 36 that ruling natural resource management must remain under direct government control (Ahmad, 2023). Thus, entities such as PNK, which function independently, are deemed incompatible with the requirements of this theory.

Meanwhile, H.L.A. Hart (1907–1992), through his work The Concept of Law (1961), introducing the concept of rule of recognition. According to Hart, a legal institution must possess a valid rule of recognition within Indonesia's legal framework. Consequently, any successor to SKK Migas must: (i) be established by statute of law; and (ii) possess dispute resolution mechanisms to ensure public acceptance of its legal authority. Therefore, only BUMN meets these criteria as it established by legislation and posses such authority. This perspective, has also in line with John Austin (1790–1859), who stated in his theory of "The Province of Jurisprudence Determined" (1832) defined law as a command from a sovereign backed by sanctions. Therefore, any legal successor to SKK Migas must: (i) be subject to sovereign authority; and (ii) have authority to impose sanctions to ensure compliance with oil and gas regulations.

(iv) Legal Authority Theory

This theory developed by Joseph Raz (1939–2018) known as The Authority of Law (1979) (Raz 1979). Raz posits that the law must provide clear and authoritative guidance to individuals and institutions. From this

perspective, the core weakness of SKK Migas lies in its lack of legal authority, as it was established only by Presidential Regulation - an administrative instrument with limited legitimacy and easily intervene or amend by its successor. And due to its weak foundation, SKK Migas lacks the strength to provide legal certainty. Meanwhile according to this theory, any legal institution must be transparent and accountable. And the entity must be established through statutory law so they could have full legal authority. Therefore, only BUMN, which established by statute – is deemed qualifies as a legitimate successor to SKK Migas.

(v) Critical Legal Theory

This legal theory is primarily advanced by Roberto Mangabeira Unger in his book: The Critical Legal Studies Movement (Unger 1983), and Duncan Kennedy in his book: Legal Education and the Reproduction of Hierarchy (Kennedy 1984). Unger emphasizes how law tends to reflect and reinforce existing power structures while Kennedy critiques legal education as a mechanism for perpetuating social hierarchies and dominant interests. From this viewpoint, the current form of SKK Migas would be outrightly rejected as it lacks strong legitimacy - being based only on a Presidential Regulation and therefore vulnerable to political interference. In accordance with this theory, the legal basis of any successor to SKK Migas must be strong and democratic. They also must serving not just the interests of the state, but also the public at large. Therefore, BUMN is the most suitable replacement, as it enables the state to manage oil and gas resources in the interest of the people and is formed through a democratic legislative process.

(vi) Social Contract Theory

This theory argues that law must be grounded in moral principles and natural justice. Within the context of establishing a new legal entity to replace SKK Migas, this theory evaluates the legitimacy of state institutions based on their service to the common good. According to Thomas Hobbes (1588–1679) in his book: Leviathan, he stated that the state must possess absolute authority to maintain order and stability (Hobbes 1651). Thus, in the context of oil and gas governance, the state must manage natural resources directly and avoid excessive involvement of private entities to reduce conflict and legal uncertainty. Hence, BUMN and BLU, both are accountable to the government, and are ideal legal forms to replace SKK Migas.

Meanwhile, John Locke (1632–1704), in Two Treatises of Government (1689) (Locke 1689), emphasized that governments must respect individual property rights, including public rights to natural resources. Accordingly, Indonesian oil and gas governance should allow public and private sector participation and it must be under strict state oversight. Therefore, Locke's perspective supports a model where PNK or a BLU - PNK hybrid could serve as suitable replacements for SKK Migas, particularly given that BLU's function includes public service. And lastly, Jean-Jacques Rousseau (1712–1778), in The Social Contract (1762) (Bennet 2017), argued that authority must arise from the general will of the people. In Indonesia's oil and gas context, this means that the successor to SKK Migas must be established by legislation and therefore must involve public representation through Parliament (DPR). Thus, only BUMN meets Rousseau's criteria. BLU and PNK which are typically not established through statutes, are unsuitable options.

(vii) Theory of Distributive Justice

From the perspective of John Rawls (A Theory of Justice 1971) (Rawls 1971), the replacement of SKK Migas must be assessed in terms of how the benefits and burdens resulting from oil and gas exploration are distributed. The key question is whether the current governance model enables a fair allocation of profits between the state and contractors. According to Rawls, inequality is only justifiable if it benefits the least advantaged members of society. Consequently, the establishment of a new legal entity through RUU Migas must take into account and be capable of resolving ongoing issues such as illegal levies in the field and bureaucratic inefficiencies experienced by the public. These are critical challenges for enhancing efficiency and transparency in the extractive sector (Sudrajat 2010). Moreover, according to Benny Lubiantara (Lubiantara 2012), the upstream Migas industry differs significantly from other sectors due to four key factors: (i) The long time lag between expenditure and revenue; (ii) High-risk uncertainty in decision-making, coupled with technology requirements; (iii) Capital-intensive investments are necessary; (iv) Despite the risks, the sector promises substantial financial returns.

Given these characteristics, Migas governance requires a legal entity capable of managing high business risks and facilitating large-scale investments. Therefore, this theory leans towards the creation of a Specific BUMN, which must be established by statute (UU). Although BLU and PNK offer some flexibility, they remain vulnerable to political interference as they are formed under Presidential or Ministerial Regulations. Fundamentally, this

theory emphasizes that a nation's legal system and economic policies must be designed to promote social justice by ensuring equality and protection for the most vulnerable groups in society.

(viii) Principle of Sustainability

Herman Daly (Daly 2007) emphasizes the importance of sustainability in the management of natural resources, which includes ensuring that resource exploitation does not exceed regenerative capacity or environmental carrying capacity. In the context of the oil and gas sector, the institutional framework must be capable of integrating the principles of energy transition toward renewables and ensuring that hydrocarbon management is not solely driven by short-term profits but also considers long-term environmental impacts. Accordingly, BUMN is more suitable to support the principle of sustainability as it possesses the flexibility to incorporate energy transition policies through statutory law. In contrast, BLU and PNK, which are limited to administrative functions, are less suitable for the effective implementation of sustainable energy policies.

(ix) Principle of Transparency and Accountability

Joseph Stiglitz underscores the necessity of transparency and accountability in public governance to prevent corruption and to enhance public trust. In the oil and gas context, there must be clear and open reporting mechanisms and independent oversight to avoid conflicts of interest. Stiglitz's core argument is that information asymmetry in the economy leads to corruption and inefficient policymaking (Epremian, Lumaja and Burch 2016). Thus, transparency and accountability in natural resource governance are essential to curb corruption and monopolistic practices. Therefore, based on this principle, BUMN can enhance transparency if accompanied by open reporting mechanisms.

6. Roadmap to Renewable Energy Principles in RUU Migas

Amidst a global transition towards cleaner and more sustainable energy, Indonesia remains heavily reliant on oil and gas resources as its primary energy source. The Government of Indonesia ratified the Sustainable Development Goals in September 2015 and has since issued several regulations, including the KEN and the RUEN. Additionally, Law No. 30 of 2007 on Energy also has been enacted. However, the current Draft Oil and Gas Law has yet to explicitly incorporate the principles of the such renewable energy. Existing regulations remain focused on hydrocarbon exploitation without presenting a clear roadmap for energy transition, thereby posing a risk that Indonesia may lag behind other nations in the development of renewable energy. This is concerning. Data from JATAM (Mining Advocacy Network) explicitly states that 75% of Indonesia's oil and gas reserves were depleted during the Soeharto administration (Dr. Ir. Djunaidi Elvis 2024). Consequently, it is expected that the legal form of the new entity replacing SKK Migas should be capable of managing and strategizing resource reservation for the benefit of the people, in order to maximize the national asset's utility. Indeed, effective upstream oil and gas management must consider fiscal discipline and sustainability to support national energy security and generate economic benefits for society (Natsir and Insyafiah 2012). Therefore, the new oil and gas legislation must be able to realize the SDGs' vision, in which includes improving access to affordable energy, safeguarding natural resources, and ensuring a transparent legal institution with resilient infrastructure (Pereira, Muinzer and Baker 2024).

It also must be ensured that the new legal form of SKK Migas does not accommodate unlawful or detrimental elements, such as liberalization of the oil industry. In principle, the state's right of control (hak menguasai negara) does not imply state ownership, but rather the exercise of five main state functions: policy-making (beleid), regulation (regelendaad), administration (bestuurdaad), management (beheersdaad) and supervision (toezichthoudendaad) (Dr. Ir. Djunaidi Elvis 2024). If these five roles are not effectively fulfilled, there is a risk that national assets could be transferred to foreign or private interests due to the lack of a proper legal structure with systematic oversight. This scenario could jeopardize the nation's strategic oil reserves. Therefore, the Draft Law on Oil and Gas must embed principles of sustainability and ecological responsibility in its governance structure, ensuring that contractors are not merely pursuing short-term profit at the expense of long-term environmental integrity. This is essential because Indonesia's oil and gas issues are not limited to SKK Migas or its institutional form but also concern the overall direction of energy management policy, which must be aligned with a new paradigm promoting clean energy (Setyono and Kiono 2021). And there are several countries may serve as models in this regard, such as:

- Norway that manages its oil and gas revenues through the Government Pension Fund Global (GPFG) designed to benefit both current and future generations (Norges Bank Investment 2023). Despite market challenges, the GPFG remains committed to investing in renewable energy assets, including offshore wind projects, as part of its long-term energy transition strategy (Reuters 2025);

- Canada has also implemented Clean Fuel Regulations, aiming to reduce the carbon intensity of fuels as part of its national climate strategy. These measures are designed to cut emissions and accelerate adoption of clean technologies and fuels (Canada 2025). However, renewable fuel producers in Canada face challenges due to a surge in imports from the United States, which has affected the carbon credit value in provinces like British Columbia, thereby impacting local producers' revenue (Reuters 2024).

These international examples illustrate how other countries have managed their energy transitions through specific and binding regulatory. Unfortunately, Indonesia's national energy policy still continues to emphasize oil and gas exploitation, despite the declining reserves. This must be change. The Draft Oil and Gas Law must reflect a long-term vision and not solely focused on resource extraction but also firmly oriented toward renewable energy transition. Accordingly, the law should incorporate clear regulatory provisions and a concrete roadmap for energy transition, including the following proposals:

- Mandatory Allocation of Oil and Gas Revenue for Renewable Energy Development. For example, introduce a Petroleum Fund for Renewable Energy, requiring every oil and gas company operating in Indonesia to allocate a portion (e.g., 2–5% of net income) to finance renewable energy development.
- Clear Targets for Renewable Energy Mix in the Oil and Gas Sector. Align the oil and gas sector with SDGs and KEN by requiring contractors to allocate at least 10% of their gas output to green energy projects.
- Strict Regulations to Reduce Carbon Emissions and Accelerate Investment in Low-Carbon Technology. The law must require oil and gas companies to transparently report their carbon footprint in annual reports and impose progressive penalties on companies that exceeding established emission thresholds.

Based on the above, Indonesia can develop its own roadmap for energy transition, focusing on: (i) Allocating oil and gas revenues to energy transition funds; (ii) Establishing energy mix targets aligned with SDGs; and (iii) Enforcing strict regulations to reduce carbon emissions and promote green technologies. Failure to act on these issues may erode international trust, especially among investors, which would ultimately harm Indonesia's own interests.

V. Conclusion

This research does not merely aim to identify the weaknesses in Indonesia's oil and gas governance but goes further by offering concrete solutions that can be implemented to address legal uncertainty, strengthen oversight, and accelerate the national energy transition. Indonesia cannot remain stagnant under outdated regulations and a weak oil and gas management system. It is time to implement a legal reform that is stronger, more efficient, and sustainability-oriented, through the following measures:

a. Establishing a New Strong Legal Entity to Replace SKK Migas. Currently, SKK Migas operates without a solid legal foundation. It is based solely on a Presidential Regulation and functions merely as a working unit under the Ministry of ESDM, without independent authority. This is a legal anomaly that must be resolved. Accordingly, this research proposes an institutional model suitable to replace SKK Migas, considering the following main options: (i) BUMN that governed by statute, with clear legal legitimacy; (ii) BLU and/or PNK model to separate supervisory and commercial functions for more strong statue, effective and transparent governance.
b. Integrating Renewable Energy Principles into RUU Migas. Indonesia's energy policy remains focused on fossil fuel exploitation, even though oil and gas reserves are dwindling. Thus, RUU Migas must adopt a long-term vision that not only regulates exploration and extraction but also includes a roadmap for energy transition.
c. Preventing Corruption and Governance Scandals in the Oil and Gas Sector through More Transparent and Technology-Based Oversight. The "fuel scandal", is strong evidence of fundamental weaknesses in Indonesia's oil and gas oversight system. Therefore, this study proposes the implementation of blockchain and IoT technology in oil and gas transactions, allowing for real-time monitoring of crude oil and fuel movement without the possibility of manipulation.
d. Furthermore, this research recommends the establishment of an Oil and Gas Anti-Corruption Task Force, comprising KPK, the Attorney General's Office, BPK, and the Ministry of ESDM, to ensure transparency in tenders, distribution, and oil and gas fund management.

VI. Limitations

Although this research has offered concrete solutions for reforming oil and gas governance in Indonesia, many aspects still require deeper analysis to ensure that such reforms can be effectively and sustainably implemented. While the findings of this research highlight the urgency of establishing a new legal entity, integrating renewable energy principles into oil and gas regulation, and strengthening technology-based oversight systems, more specific follow-up research is still needed regarding the implementation of these policies, particularly in the areas of

economics, technology, and legal oversight. Future research must focus on evaluating the long-term impacts of these policies and on how various stakeholders can work together to realize a more just, transparent, and sustainable oil and gas governance system—because the future of Indonesia's energy depends on the decisions made today. Hence, further research and study must continue to ensure that the oil and gas sector is managed optimally, sustainably, and in alignment with the national interest.

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