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The Efficiency and Resilience Dilemma : Economic Analysis of the Downstream Fossil Energy Industry Amidst the National Energy Transition

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Abstract

Indonesia's dependence on fossil fuels remains strong despite national policy prioritizing the transition to net zero emissions by 2060 as a strategic goal. The downstream fossil fuel sector, particularly petroleum fuel processing and distribution, plays a crucial role in maintaining energy security and national economic stability. However, the dominance of state-owned enterprises, limited refinery capacity, and high subsidy policies create a dilemma between economic efficiency and energy security needs. This study aims to analyze the performance and economic structure of the downstream fossil energy industry in Indonesia using an industrial economics approach to understand the relationship between market structure, business behavior, and industry performance in the context of the national energy transition.

The research method used is a qualitative - descriptive approach through literature studies, secondary data analysis from the Ministry of Energy and Mineral Resources, Statistics Indonesia, the Ministry of Finance, and reports from international institutions such as the International Energy Agency (IEA) and the UNFCCC. The analysis is based on the Structure Conduct Performance (SCP) framework to identify the influence of market structure on the efficiency and competitiveness of the downstream fossil fuel sector. The data analyzed includes market share, subsidy levels, contribution to GDP, and indicators of economic efficiency and national carbon emissions.

The analysis shows that the market structure of Indonesia's downstream fossil fuel sector

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remains oligopolistic, with strong dominance by state-owned enterprises (SOEs) leading to low levels of competition and innovation. Large energy subsidies cause price distortions and significant fiscal burdens, while investments in new refinery projects have yet to show optimal results. These conditions have resulted in economic inefficiency and dependence on fuel imports, which in turn weakens national energy security. This study concludes that structural reforms, increased market efficiency, and the gradual integration of fossil fuels and new and renewable energy are important steps toward achieving a balance between economic efficiency and energy security during the transition to a low carbon economy.

Keyword : Fossil Energy, Industrial Economy, Downstream Sector, Efficiency, Energy Security, Energy Transition.

INTRODUCTION

The energy sector constitutes one of the principal pillars of national economic development, supporting nearly all production, transportation, and consumption activities. In the Indonesian context, fossil fuels particularly petroleum, natural gas, and coal remain the dominant sources in the national energy mix, accounting for 68.6 % in 2023, consisting of petroleum at 31.3 %, coal at 35.2 %, and natural gas at 2.1 % (Ministry of Energy and Mineral Resources, *Handbook of Energy & Economic Statistics of Indonesia* 2024). Although the government has set a target of achieving Net Zero Emissions (NZE) by 2060 and increasing the share of new and renewable energy (NRE) to 23 % by 2025, the actual NRE share reached only 13.1 % by the end of 2023 (National Energy Council, *Indonesia Energy Outlook* 2024). These data indicate that dependence on fossil energy remains extremely high, particularly in the downstream sector, which includes the processing, distribution, and consumption of petroleum fuels.

The downstream fossil energy industry plays a strategic role in maintaining national economic stability. This subsector ensures energy supply for the transportation sector, manufacturing industries, and households, while also supporting national energy security programs. According to data from BPH Migas (2024), national fuel consumption reached 77 million kiloliters in 2023, of which approximately 67 % was distributed by Pertamina Patra Niaga, a subsidiary of Pertamina (Persero) that dominates domestic distribution. At the same time, the domestic refinery capacity operated by Pertamina can produce only 730 thousand barrels per day, far below the national demand of 1.5 million barrels per day. Consequently, the deficit is met through imports of petroleum products amounting to as much as 40 % (Pertamina, *Annual*

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Report 2023). This reliance on imports not only places pressure on the trade balance but also increases vulnerability to fluctuations in global oil prices.

At the global level, the dynamics of the energy market have undergone substantial changes due to decarbonization commitments and advancements in clean energy technologies. World oil prices, which reached USD 97 per barrel in mid-2023 (IEA, *Oil Market Report* 2024), exerted additional pressure on Indonesia's import costs and energy subsidies. The Ministry of Finance reported that energy subsidies and compensation in 2023 amounted to IDR 431.9 trillion, representing a 19 % increase from the previous year (Ministry of Finance, *APBN Kita*, December 2023). This situation creates a dilemma between maintaining stable energy prices for the public and safeguarding the country's fiscal sustainability.

Meanwhile, pressure from international policies, such as the European Union's Carbon Border Adjustment Mechanism (CBAM) and the growing global emphasis on Environmental, Social, and Governance (ESG) standards, has affected financing for the national fossil energy industry. International financial institutions are increasingly restricting funding for coal and oil based energy projects, resulting in stagnation in downstream infrastructure investment. According to the International Renewable Energy Agency (IRENA, 2024), global investment in fossil energy has declined by 9 % per year since 2018, while investment in renewable energy has grown by more than 30 % annually.

Against this background, this paper aims to analyze the economic aspects of Indonesia's downstream fossil energy industry using an industrial economics approach. The analysis focuses on the relationship between market structure, firm behavior, and industry performance, as well as how these three dimensions influence economic efficiency, competitiveness, and national energy security. This study also examines the strategic position of the downstream fossil sector within the broader context of Indonesia's energy transition policies toward a low carbon economy.

Problem Statement

The core issues that form the focus of analysis in this study encompass several key challenges, as outlined below :

1. Dependence on Fossil Energy Amid the National Energy Transition Agenda

Despite the government's declared target of achieving Net Zero Emissions (NZE) by 2060, the national energy mix in 2023 remained heavily dominated by fossil sources, accounting for 68.6 % and consisting of coal (43 %), petroleum (31 %), and natural gas (25 %) (Ministry of Energy and Mineral Resources, *Handbook of Energy & Economic Statistics of Indonesia*, 2024). This

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persistent reliance creates a dilemma between advancing national decarbonization commitments and maintaining energy stability and security.

2. Limited Domestic Refining Capacity

Indonesia's current crude oil refining capacity amounts to only 1.05 million barrels per day, whereas national demand is approximately 1.4 million barrels per day (IESR, *Indonesia Energy Transition Outlook* 2024). Consequently, an estimated 35 - 40 % of national fuel demand continues to be met through imports (BPH Migas, 2024), exerting pressure on the trade balance and heightening vulnerability to fluctuations in international oil prices.

3. Price Distortions and a Heavy Fiscal Burden

Government policies on energy subsidies and compensation implemented to ensure the affordability of fuel and liquefied petroleum gas (LPG) have imposed a substantial fiscal burden on the state budget. According to the Ministry of Finance (2024), total energy subsidies and compensation reached approximately IDR 401.9 trillion in 2023, with more than IDR 157 trillion allocated specifically for fuel and LPG. These conditions reflect structural inefficiencies in the pricing mechanism within the downstream energy sector.

4. Structural Inefficiencies and the Dominance of State-Owned Enterprises

The downstream fossil energy industry in Indonesia continues to be dominated by the Pertamina Group, which controls more than 95 % of the national fuel distribution market (Pertamina, *Annual Report* 2023). Such dominance creates barriers to entry for private sector participants, reduces market competition, and slows innovation and operational efficiency across the downstream energy supply chain.

5. Global Pressures on Fossil Fuel Financing

With the strengthening of global decarbonization policies, various international financial institutions including the World Bank, the Asian Development Bank (ADB), and the OECD Export Credit Agencies have increasingly restricted financing for fossil fuel based energy projects. This shift has significant implications for long term investment in the downstream sector, particularly for refinery development and fuel infrastructure projects that require substantial and sustained capital commitments (IEA, *World Energy Outlook* 2023).

From these five key problem areas, the central issue that requires deeper examination is how the structure and economic behavior of Indonesia's downstream fossil energy industry influence overall efficiency, national energy security, and the country's readiness to transition toward a low carbon energy system.

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Theoretical Framework : Industrial Economics of the Energy Sector

The industrial economics approach is fundamentally important for explaining the relationship between market structure, firm behavior, and the resulting economic performance of an industry. This framework is encapsulated in the Structure Conduct Performance (SCP) model, first introduced by Bain (1959) and later refined by Scherer and Ross (1990).

In the context of the downstream fossil energy industry, this analytical approach enables a deeper understanding of how market dominance, government policies, and competitive mechanisms influence national efficiency and competitiveness.

1. Market Structure

A defining characteristic of the downstream energy sector in Indonesia is the presence of high market concentration combined with substantial entry barriers. Pertamina Group, a state-owned enterprise, controls more than 95 % of the national fuel distribution market and operates all six major domestic refineries with a total capacity of approximately 1.05 million barrels per day (Pertamina, *Annual Report* 2023).

Although liberalization of the energy sector has been formally established through Law No. 22/2001, competition remains limited. Private firms such as Shell, BP, and Vivo occupy only a small segment of the market due to significant infrastructure investment requirements and complex licensing procedures (IESR, 2024).

This high market concentration results in an oligopolistic structure in which pricing and distribution mechanisms do not fully reflect open market dynamics. Consequently, economic efficiency is reduced, and the sector's ability to adopt innovation and energy diversification is slowed.

2. Market Conduct

Market conduct refers to the strategies and decision making processes of firms in setting prices, managing distribution channels, and adopting technological innovations. In Indonesia, government policies on energy subsidies and compensation have caused fuel prices to diverge from actual production and distribution costs (Ministry of Finance, 2024). Such price distortions yield dual effects : on the one hand, they maintain consumer affordability, on the other, they reduce incentives for improving energy efficiency and increase the fiscal burden on the state.

The Asian Development Bank (ADB, 2023) reports that fuel and LPG subsidies remain one of the primary obstacles to accelerating the national energy transition. Meanwhile, Pertamina has begun implementing the Refinery Development Master Plan (RDMP) and the Green Refinery Project to enhance refinery efficiency and reduce emissions. However, these initiatives continue to face challenges related to financing and the nation's reliance on imported crude oil.

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3. Industrial Performance

The economic performance of the downstream fossil energy sector can be assessed through its contribution to the national Gross Domestic Product (GDP), its efficiency levels, and the profitability of firms operating within it. According to data from Statistics Indonesia (BPS, 2024), the oil and gas processing sector contributes approximately 4.8 % to national GDP and provides employment for more than 350,000 workers, both directly and indirectly.

However, the International Energy Agency (IEA, 2023) reports that refining margins across Southeast Asia declined from an average of USD 7.5 per barrel in 2021 to only USD 3.9 per barrel in 2023. This decline has weakened the profitability of domestic refineries, increased logistics costs, and exacerbated reliance on imported refined petroleum products.

4. Global Dynamics

Globally, the fossil energy industry is under increasing pressure due to the energy transition and widespread decarbonization policies. Developed countries such as the United States, the European Union, and Japan have shown declining oil consumption trends of 2 - 3 % annually (IEA, 2024), driven by the expansion of electric mobility and bioenergy adoption. For developing countries such as Indonesia, the situation presents a paradox : the need to ensure affordable energy access must be balanced with the obligation to reduce carbon emissions.

The World Bank (2024) emphasizes that, without structural reforms in the downstream sector particularly in efficiency, pricing, and logistics, Indonesia will face a dual economic burden : declining competitiveness in the fossil sector and lagging progress in clean energy development.

Problem Analysis Based on the Theoretical Framework

The following analysis applies the Structure Conduct Performance (SCP) framework from industrial economics to examine issues of efficiency, competitiveness, and sustainability in Indonesia's downstream fossil energy sector. This approach highlights the ways in which market structure, government policy, and investment dynamics collectively influence long term economic and environmental performance.

1. Market Structure and Efficiency

The market structure of Indonesia's downstream energy sector exhibits characteristics of a highly concentrated oligopoly. Pertamina Group controls roughly 95 % of the national fuel distribution market and operates all major refining facilities located in Dumai, Balikpapan, Cilacap, Balongan, Plaju, and Kasim (Pertamina, *Annual Report* 2023).

The presence of private competitors such as Shell, BP, and Vivo has not yet generated

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meaningful competition due to significant entry barriers, including large capital requirements for infrastructure, complex licensing procedures, and dependence on Pertamina's distribution network.

From an industrial economics perspective, high market concentration reduces allocative and productive efficiency. According to the Institute for Essential Services Reform (IESR, 2024), Indonesia's refining and distribution margins are significantly lower than those of other ASEAN countries (approximately USD 3.9 per barrel compared to a regional average of USD 6 - 8 per barrel), indicating underutilization of industrial assets and high operational costs. This situation weakens the downstream sector's capacity for innovation and value creation, especially in refining and petrochemical development.

2. Pricing Policies and Subsidies

Energy pricing in Indonesia is heavily influenced by government subsidy and compensation mechanisms. According to the Ministry of Finance (2024), total energy subsidies and compensation in 2023 reached IDR 431.9 trillion, equivalent to around 14 % of total central government expenditure. Of this amount, fuel and LPG absorbed more than 70 %, while the remainder was allocated to electricity subsidies.

While these policies maintain household purchasing power, they also introduce market distortions because fuel prices do not reflect actual production and distribution costs. Within the SCP framework, such price interventions create allocative inefficiencies and discourage innovation, as firms have reduced incentives to improve energy efficiency or develop alternative fuels.

The Asian Development Bank (ADB, 2023) notes that Indonesia's energy subsidy system has slowed the pace of decarbonization and hindered the penetration of renewable energy in the transport and household sectors. Furthermore, the resulting fiscal burden limits the government's ability to invest in clean energy infrastructure and expand domestic refining capacity.

3. Investment and Competitiveness

Investment trends in the downstream fossil energy sector have shown stagnation over the past five years. The planned Refinery Development Master Plan (RDMP) and Grass Root Refinery (GRR) initiatives expected to expand refining capacity from 1.05 million to 1.5 million barrels per day have been delayed until 2027 due to financial constraints and changes in funding schemes (Pertamina, 2023).

Data from the Indonesia Investment Coordinating Board (BKPM, 2024) indicate that foreign direct investment (FDI) in oil processing amounted to only USD 239 million in 2023, an

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18 % decline from the previous year. Limited progress in refinery development has resulted in continued dependence on imported refined products, which reached 739 thousand barrels per day in 2023, or about 60 % of total national demand (BPH Migas, 2024).

This dependency undermines national energy competitiveness and increases exposure to global oil price volatility. According to the IEA (2024), crude oil price fluctuations between USD 70 and USD 95 per barrel during 2023 - 2024 destabilized domestic pricing and elevated government compensation costs.

4. Economic and Environmental Impacts

Dependence on fossil energy carries dual implications for Indonesia's macroeconomic condition and environmental sustainability. Economically, high levels of crude oil and fuel imports widened the oil and gas trade deficit which reached USD 15.4 billion in 2023 (Bank Indonesia, 2024) placing pressure on the rupiah exchange rate and reducing fiscal space for other productive investments.

Environmentally, the energy sector is the largest contributor to national greenhouse gas emissions. Data from the Ministry of Environment and Forestry (KLHK, 2024) show that emissions from the energy sector account for 36 percent of total national emissions, or approximately 404 million tons of CO_2e. Within this figure, downstream activities including transportation, refining, and fuel distribution contribute around 60 % of total energy sector emissions.

This situation places Indonesia in a challenging position in its pursuit of the Net Zero Emission (NZE) 2060 target, as the national economy and energy policy framework remain deeply reliant on fossil fuels. The World Bank (2024) warns that without reforms to pricing policies and stronger incentives for green investment, continued dependence on fossil energy may hinder the development of a green economy and diminish the attractiveness of sustainable foreign investment.

METHOD

This study employs a descriptive qualitative approach aimed at providing a comprehensive overview of the conditions and dynamics of Indonesia's downstream fossil energy sector. This approach is selected because it enables an in depth explanation of phenomena through the examination of documents, policies, and statistical data without relying on quantitative testing. The research process is organized according to analytical stages commonly used in industrial economics studies, as outlined below.

A. Collecting Information

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The first stage of the research involves collecting various types of data relevant to the study's topic. Sources of information include :

1. Government institutions, such as the Ministry of Energy and Mineral Resources (ESDM), Ministry of Finance, Statistics Indonesia (BPS), BPH Migas, and SKK Migas, which provide official data on production, consumption, fuel imports, energy subsidies, and industry performance.
2. International organizations, including the IEA, IRENA, the World Bank, and the UNFCCC, to obtain global perspectives on energy trends, investment flows, and low carbon transition pathways.
3. Academic publications and scientific literature, including books, journals, and research studies discussing energy market structures, downstream policy frameworks, and mechanisms of energy transition.
4. This data collection stage aims to establish a strong informational foundation prior to conducting the analytical phase.

Determining the Analytical Focus and Research Variables

In the next stage, the researcher identifies key elements relevant to evaluating the downstream fossil energy industry. The variables examined in this study include :

1. Market structure, such as the level of industry concentration, dominance of major firms, and entry barriers.
2. Market conduct, including pricing policies, distribution patterns, subsidy mechanisms, and refinery investment behavior.
3. Industry performance, covering operational efficiency, refining margins, supply security, and contributions to the national economy.
4. External factors, such as international oil price volatility, decarbonization pressures, and global financing trends.
5. Determining these variables ensures that the analysis proceeds systematically in accordance with the Structure Conduct Performance (SCP) framework.

Analysis Using the Structure Conduct Performance (SCP) Framework

All collected data are subsequently analyzed using the SCP framework to examine the relationships between market structure, firm behavior, and the resulting performance of the downstream sector. The stages of analysis are as follows :

1. Structure Analysis

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This stage evaluates market concentration levels, refinery capacity, dominance in fuel distribution, and dependence on imports as indicators of the strength or weakness of the downstream market foundations.

2. Conduct Analysis

This stage assesses how pricing practices, distribution management, investment strategies, and subsidy policies influence competition and efficiency. It also examines the progress of Pertamina's RDMP and GRR programs as part of refinery modernization initiatives.

3. Performance Analysis

This stage measures the extent to which the downstream sector contributes to economic efficiency, refinery margins, energy supply stability, and the fiscal and environmental implications of dependence on fossil fuels. The SCP framework is employed because it provides a comprehensive understanding of the key drivers behind inefficiency and energy security risks in Indonesia.

Compilation of Findings and Conclusion Drawing

The final methodological stage involves synthesizing analytical results through cross-verification (triangulation) of data from multiple official sources to ensure the consistency and accuracy of information. The resulting findings are then summarized into conclusions that address the research objectives and serve as the basis for policy recommendations aimed at strengthening energy security and improving efficiency within the downstream fossil energy sector.

RESULTS AND DISCUSSION

The results of the analysis indicate that the structure of Indonesia's downstream fossil energy industry has yet to achieve optimal efficiency, both economically and environmentally. According to data from the Ministry of Energy and Mineral Resources (2024), approximately 95 % of the national fuel distribution market remains dominated by Pertamina, reflecting an oligopolistic market structure that weakens price competition and innovation. Within the Structure Conduct Performance (SCP) framework, the dominance of a single major entity supported by price regulation generates allocative inefficiency, wherein energy prices do not reflect their true economic costs (Carlton & Perloff, *Modern Industrial Organization*, 2021).

Price intervention through subsidies and energy compensation further exacerbates market inefficiencies. The Ministry of Finance (2024) reports that total energy subsidies and compensation reached IDR 431.9 trillion, equivalent to around 14 % of central government

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expenditure. These distortions hinder the penetration of renewable energy and create deadweight loss, as fossil fuel consumption rises beyond the market efficient level. Data from the International Energy Agency (IEA, 2023) also show that Indonesia's energy subsidies are among the highest in the ASEAN region, thereby reducing the competitiveness of the clean energy sector.

Nevertheless, from the perspective of national energy security, Pertamina's presence carries strategic value. As a national oil company (NOC), Pertamina plays a crucial role in ensuring fuel supply stability and managing exposure to global geopolitical risks. The experience of countries such as India and Mexico illustrates that full liberalization without robust regulatory preparedness can lead to extreme price fluctuations and supply instability (World Bank, *Energy Outlook*, 2023). Therefore, energy sector reform in Indonesia must balance economic efficiency with social equity, rather than pursuing market deregulation alone.

From an investment standpoint, delays in the Refinery Development Master Plan (RDMP) highlight the low competitiveness of the domestic downstream industry. Current domestic refining capacity stands at only about 1.05 million barrels per day, while national demand has reached 1.6 million barrels per day (SKK Migas, 2024). As a result, Indonesia continues to import more than 90 % of its finished fuel requirements, contributing to an oil and gas trade deficit of USD 17 billion in 2023 (BPS, 2024).

From an environmental perspective, the energy sector accounts for 36 % of total national greenhouse gas emissions (KLHK, 2024), reinforcing the urgency of transitioning toward a low carbon energy system. A medium term, realistic strategy involves integrating fossil downstream operations with renewable energy initiatives, such as co-processing biofuels in existing refineries, utilizing natural gas for blue hydrogen production, and implementing carbon capture, utilization, and storage (CCUS).

A just energy transition approach is essential to ensure that the shift toward a low carbon economy is equitable. This means that energy transformation policies must consider the social impacts on workers and communities dependent on the fossil fuel industry (ILO, 2022). National energy policy reform should therefore prioritize not only market liberalization but also efficiency enhancement, equitable distribution of benefits, and accelerated investment in sustainable clean energy.

CONCLUSION

The industrial economics analysis of Indonesia's downstream fossil energy sector reveals several strategic findings that have direct implications for economic efficiency, energy security,

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and the direction of the national energy transition.

First, the market structure remains oligopolistic and highly concentrated in a single dominant actor PT Pertamina (Persero), which controls more than 90 % of the national fuel distribution market (BPH Migas, 2024). This concentration results in low levels of competition and economic efficiency. Significant entry barriers arising from regulatory constraints, substantial capital investment requirements, and government controlled pricing prevent market dynamics from fully aligning with industrial efficiency principles outlined in the Structure Conduct Performance (SCP) framework.

Second, dependence on imported fuel continues to weaken national energy autonomy. Data from the Ministry of Energy and Mineral Resources (2024) indicate that approximately 65 % of national fuel demand is met through imports, while domestic refining capacity stands at only 1.05 million barrels per day far below the consumption level of around 1.6 million barrels per day (Pertamina, *Annual Report* 2023). This condition exposes Indonesia to global oil price volatility and exacerbates pressure on the national trade balance.

Third, fossil fuel subsidies remain a substantial fiscal burden. According to the Central Government Financial Statements (LKPP, 2024), total energy subsidies and compensation reached IDR 431.9 trillion, or roughly 14 % of total central government expenditure. These policies create market distortions and reduce incentives for shifting toward new and renewable energy (RNE).

Fourth, the competitiveness of the national downstream fossil industry remains stagnant due to delays in the implementation of Pertamina's Refinery Development Master Plan (RDMP) and Grass Root Refinery (GRR) projects. As of 2024, only two projects Balikpapan and Cilacap have reached more than 50 % physical progress (SKK Migas, 2024). Constraints in technology and processing efficiency result in Indonesia's refining margin remaining within the range of USD 4 - 6 per barrel, lower than those of Singapore and South Korea, which range between USD 8 - 10 per barrel (IEA, 2024).

Finally, in the global context, increasing pressure for decarbonization and green financing necessitates fundamental restructuring. The World Bank's *Energy Transition Pathways* (2023) reports that international financial institutions have begun reducing exposure to fossil related investments, compelling Indonesia to prepare an adaptive and sustainable transition strategy for its downstream fossil industry.

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Recommendations

1. Reforming the structure of the downstream energy industry

Reforms should focus on opening space for healthy competition and increasing private sector participation, including encouraging joint ventures between state owned enterprises (SOEs) and global investors in refinery and distribution projects. Price regulation should gradually shift toward a *price cap mechanism* to maintain price stability without suppressing market efficiency.

2. Transforming fossil-fuel subsidies into targeted and energy efficiency based subsidies

This approach would allow the government to redirect fossil subsidy expenditures toward energy transition programs, such as biofuel development, electric mobility, and community based renewable energy initiatives (IESR, 2024). A targeted subsidy system improves both fiscal efficiency and social equity.

3. Enhancing investment in downstream energy infrastructure

Priority areas include refineries, storage terminals, and distribution networks. The government should strengthen legal guarantees, fiscal incentives, and public private partnership (PPP) schemes to attract long-term investment and reduce dependence on imported refined products.

4. Integrating fossil energy with renewable energy through technological innovation

This can be achieved through initiatives such as biofuel co-processing in existing refineries, carbon capture, utilization and storage (CCUS), and hybrid bio refinery systems. These innovations not only reduce carbon intensity but also expand the national energy portfolio, enabling a smoother and more resilient transition.

5. Improving governance and transparency in pricing, distribution, and subsidy allocation

Digitalizing the energy supply chain through energy traceability systems can enhance accountability, reduce leakages, and strengthen operational efficiency. Transparent governance is crucial to building trust and ensuring policy effectiveness.

With these reform measures, Indonesia's downstream fossil energy industry can transform into a more efficient, competitive, and adaptive sector in response to global decarbonization pressures. A balanced transition approach, one that integrates economic efficiency with social equity through a *just energy transition* will be essential for maintaining national energy stability and achieving the Net Zero Emission 2060 target.

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