

Investment of Mubadala Energy in Indonesia's Natural Gas Sector: An Analysis of the Role of Sovereign Wealth Funds (SWF) in the Energy Transition

Shamira Azalia Ramadhina

Centre for Business and Diplomatic Studies, Department of International Relations,
Faculty of Humanities, Bina Nusantara University, Indonesia

Article Info	ABSTRACT
Article history: Received January 10, 2026 Revised March 22, 2026 Accepted March 23, 2026 Published March 23, 2026	Purpose This study examines the investment dynamics of Mubadala Energy as a representation of the Sovereign Wealth Fund (SWF) owned by the United Arab Emirates (UAE) that invests in Indonesia's energy sector, particularly in the natural gas sector. Method A descriptive qualitative approach with a case study method employs, this study draws on corporate reports, national documents, and international publications. Findings The findings indicate that Mubadala Energy's investment has contributed to Indonesia's national energy security and economic growth. However, the direction of its investment remains focused on fossil energy, particularly natural gas, and this is not aligned with Indonesia's energy transition agenda. Therefore, it slows the energy transition process in Indonesia.
Keywords: Energy Transition; Sovereign Wealth Fund; Indonesia; Mubadala Energy;	Originality By combining the International Political Economy (IPE) perspective with Sovereign Wealth Fund (SWF) concept, this study allows the analysis of the role and motives behind Mubadala Energy's investment in Indonesia's energy sector that functions as political-economic instruments of their home countries in pursuing long-term strategic interests. Meanwhile, Indonesia often faces structural power asymmetries that render it dependent on external actors in decisions related to national interests.

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Corresponding Author:

Shamira Azalia Ramadhina
Email: shamira.ramadhina@binus.ac.id

1. INTRODUCTION

Energy transition has emerged as a critical agenda in global development, with numerous countries committing, through frameworks like the Paris Agreement, to shift

from fossil fuels to renewable energy sources (Ali & Abdalla, 2025; Bass & Grøgaard, 2021; Klement, 2021; Majumdarr et al., 2023). According to the International Energy Agency (IEA)'s *Global Energy Review 2024*, global energy demand rose by 2.2% in 2023, yet renewables were the largest contributor to supply growth, outpacing expansions in natural gas, coal, oil, and nuclear power. Despite these advances, heavy dependence on fossil fuels which still dominate primary energy supply and account for over 75% of global CO₂ emissions, continues to drive global warming, extreme weather events, and existential threats to the climate. This persistent reliance necessitates a fundamental restructuring of energy systems to mitigate environmental degradation and ensure long-term energy security, particularly for nations abundant in renewable resources but historically dependent on fossil fuels, such as Indonesia (Kirana & Triantama, 2024; Situmeang et al., 2024).

Indonesia, a developing country endowed with abundant natural resources yet historically reliant on fossil fuels (Kirana & Triantama, 2024; Raihan, 2023; Situmeang et al., 2024; Yudiantono et al., 2023), continues to face significant challenges in diversifying its energy mix. Fossil fuels dominate supply, with renewables comprising just 11% in 2021 despite transition commitments (Raihan, 2023), amid escalating demand driven by rapid urbanization, population growth, and economic expansion.

Indonesia is attempting to achieve the Net Zero Emissions (NZE) target by 2060 through the National General Energy Plan (RUEN) and Presidential Regulation No. 112/2022 (Putra et al., 2023). However, these policies are not sufficient, as renewables comprised only 11% of the energy mix in 2021 despite transition commitments (Raihan, 2023; Situmeang et al., 2024), reflecting persistent fossil fuel dominance and associated environmental degradation (Raihan, 2023; Yudiantono et al., 2023). Indonesia faces multifaceted challenges in achieving the NZE 2060 target and implementing the energy transition, including resource depletion risks (Situmeang et al., 2024).

To achieve the NZE target by 2060, Indonesia requires substantial funding, with the Ministry of Finance estimating energy sector needs at Rp3,500 trillion until 2030 (Prasodjo, 2023). Climate change mitigation efforts are shaped by each country's capacity and conditions (Raihan, 2023; Situmeang et al., 2024). Beyond financing, technological and human resource constraints pose major barriers; development mechanisms remain limited, particularly in human resources and knowledge essential for net-zero goals (Raihan, 2023; Yudiantono et al., 2023). Furthermore, Indonesia's current energy mix heavily relies on fossil fuels, with coal, oil, and natural gas remaining primary energy sources, complicating efforts to significantly replace them with renewable alternatives despite existing regulatory frameworks (Nasir & Bengi, 2024). This reliance, with 91.5% of its national primary energy mix derived from these sources and over 60% of its electricity generation from coal alone, positions it as the 7th largest user of coal-fired power plants globally, exacerbating its vulnerability to climate change despite ambitious net-zero targets (Sekaringtias et al., 2022; Silalahi et al., 2022).

In situations such as this, the involvement of non-state actors becomes fundamental, as Indonesia requires substantial funding to achieve its NZE target by 2060 (Raihan, 2023; Situmeang et al., 2024). Therefore, the government strongly encourages the participation of private sector and foreign investors as key providers of financial support, technology transfer, and expertise for energy transition projects (Situmeang et al., 2024). Because Indonesia faces multifaceted barriers including technological and human resource constraints (Raihan, 2023; Yudiartono et al., 2023), the government can rely on cooperation through SWF, which exert significant influence on national financial systems, accelerate low-carbon and renewable energy transitions, and manage associated investment risks and opportunities (Bass & Grøgaard, 2021).

One investor that plays an important role in this clean energy mission is a multinational company operating in the energy sector, namely Mubadala Energy, an energy company from Abu Dhabi, United Arab Emirates (UAE), which has been investing in Indonesia since 2004, notably through the Ruby Gas Field project in the Sebuk Block, Makassar Strait, offshore Southeastern Kalimantan, which commenced production in 2013 (Bass & Grøgaard, 2021). According to the Mubadala Energy Sustainability Report, this investment has bolstered gas infrastructure development, natural gas lifting, and Indonesia's economic growth, thereby enhancing short-term energy security amid the country's heavy fossil fuel reliance, where oil, gas, and coal dominate 91% of the primary energy mix (Nasir & Bengi, 2024; Raihan, 2023; Sekarintias et al., 2022). However, as a fossil fuel endeavor, it primarily reinforces upstream oil and gas activities rather than new and renewable energy sources, misaligning with Indonesia's NZE 2060 targets and the global imperative for low-carbon transitions (Ali & Abdalla, 2025; Situmeang et al., 2024; Yudiartono et al., 2023). This underscores a critical incongruity where current investment priorities, while contributing to short-term energy supply, may inadvertently perpetuate fossil fuel dependence, thereby complicating the nation's long-term decarbonization trajectory (Massagony et al., 2025).

This condition creates a significant research gap: despite the mounting global urgency for energy transitions, IEA data showing renewables as the primary source of supply growth in 2023 amid 2.2% demand rise, yet fossil fuels still accounting for over 75% of CO₂ emissions (Ali & Abdalla, 2025; Bass & Grøgaard, 2021; Klement, 2021; Majumdarr et al., 2023), most SWF investments, exemplified by Mubadala Energy's Ruby Gas Field project in Indonesia (producing since 2013), prioritize fossil fuels like natural gas, reinforcing upstream activities that misalign with NZE 2060 targets (Bass & Grøgaard, 2021; Nasir & Bengi, 2024; Sekarintias et al., 2022). Although SWFs possess the capital, global reach, and mandate (e.g., Norway's SPU shifting to renewables) to drive transitions and manage risks (Bass & Grøgaard, 2021), scholarly analyses of the geopolitical motives behind such fossil-focused SWF investments in developing countries like Indonesia (Raihan, 2023; Sekarintias et al., 2022; Silalahi et al., 2022) remain limited during this critical transition phase (Ali & Abdalla, 2025; Klement, 2021). Addressing this gap is essential to unpack potential misalignments in funding low-carbon shifts (Situmeang et al., 2024; Yudiartono et al., 2023). Therefore,

this study addresses this gap by answering the question: How do the strategic motives and geopolitical interests of SWFs, such as Mubadala Energy (representing Abu Dhabi's SWF), influence investment directions in Indonesia's oil and gas sector amid global energy transition pressures?

Beyond environmental imperatives, energy transition has emerged as a geopolitical arena where nations compete for critical technologies, funding, and resources, underscoring the role of geopolitical factors in shaping global energy landscape (Ali & Abdalla, 2025; Klement, 2021). The government remains committed to accelerating the energy and electricity sectors toward NZE, yet implementation is hindered by regulatory overlaps, inflexible grids, and insufficient incentives (Raihan, 2023; Situmeang et al., 2024). Indonesia holds substantial renewable energy potential in solar, wind, and biomass, but realization lags far behind, reaching only 12.2% of the primary energy mix in 2023 against the 23% RUEN target for 2025, due to fragmented laws and institutional coordination failures (Nasir & Bengi, 2024; Raihan, 2023; Sekarintias et al., 2022). The absence of dedicated climate change and energy transition legislation exacerbates these issues, reflected in Indonesia's 36th ranking out of 68 countries in the 2024 Climate Change Performance Index (Sudarwanto & Daryanti, 2025).

Existing measures, confined to Presidential Regulations such as No. 112/2022 on accelerating renewables energy development (Lembut & Oktariani, 2023) and No. 98/2021 on economic value of carbon or carbon pricing (Sudarwanto & Daryanti, 2025), lack binding authority and effective enforcement (Situmeang et al., 2024; Yudiantono et al., 2023). However, their implementation has not been effective due to overlapping authority among institutions such as National Electricity Company (PLN) and the Ministry of Energy and Mineral Resources (Lubis et al., 2025; Sudarwanto & Daryanti, 2025). On the other hand, Indonesia's renewable energy target remains far from being achieved. The government issued a policy as stated in Article 1 of Presidential Regulation No. 22/2017 concerning the RUEN that is mandated to the central government to design national energy management (Sekretariat Kabinet Republik Indonesia, 2017). In 2023, Indonesia's renewable energy contribution reached only 12.2% of the total primary energy mix, whereas RUEN targets 23% by 2025 (Purba & Irianto, 2025). This situation is due to inflexible electricity grid systems, complicated investment procedures, and a lack of incentives to attract investors (Yudiantono et al., 2023). In addition, the existing laws governing energy transition efforts in Indonesia remain fragmented and ineffective. Therefore, the policies established by the Indonesian government have not yet adequately addressed the complex challenges of national energy transition.

Sovereign Wealth Fund in Energy Investment

In addition to technological and policy challenges, financing poses a critical barrier in Indonesia's energy transition, exacerbated by limited fiscal capacity and high capital requirements for clean energy infrastructure (Massagony et al., 2025; Situmeang et

al., 2024). Developing countries like Indonesia, heavily rely on external financial support from private foreign and state-owned investors, including SWFs, which offer substantial capital resources and global reach (Al-Attiyah Foundation, 2021; Bass & Grøgaard, 2021). While these actors play pivotal roles in bridging financing gaps—such as during economic crises where SWFs provided liquidity injections (Souhila, 2024), their involvement often introduces geopolitical dynamics and potential interest imbalances, prioritizing fossil fuels or short-term returns over renewables (Ali & Abdalla, 2025; Babić, 2024; Klement, 2021). Despite renewables comprising just 12.2% of Indonesia's energy mix against a 23% target by 2025 (Purba & Irianto, 2025; Raihan, 2023), questions persist: to what extent do SWF investment directions and motives align with host countries' sustainable transition needs? This necessitates rigorous examination of investors' roles amid global pressures like the Paris Agreement (Majumdarr et al., 2023; Yudiartono et al., 2023).

In this context, foreign investors provide crucial external capital (Bass & Grøgaard, 2021), yet their involvement introduces risks such as unstable regulatory conditions and policy gaps heighten investment uncertainties, potentially creating imbalances between host countries' transition needs and investors' political-economic interests (Ali & Abdalla, 2025; Babić, 2024). SWFs emerge as particularly effective investors for such nations, leveraging substantial resources, global reach, and strategic mandates to bridge financing gaps (Al-Attiyah Foundation, 2021; Bass & Grøgaard, 2021).

SWFs also serve as financial stabilizers during economic crises, exemplified by their liquidity injections and market stabilization efforts amid the 2008–2009 global financial crisis and periods of rising inflation, as demonstrated by funds from the UAE, Qatar, and China (Souhila, 2024). This underscores SWFs' dual role as investors and strategic state policy instruments supporting national and global projects (Al-Attiyah Foundation, 2021; Bass & Grøgaard, 2021). However, a report from The Al-Attiyah Foundation reveals that SWF energy investments remain predominantly concentrated in oil and gas, alongside carbon capture and storage, rather than fully transitioning to renewables, Middle Eastern SWFs like ADIA, Mubadala, and QIA maintain large fossil fuel portfolios despite expanding renewable subsidiaries (Al-Attiyah Foundation, 2021; Babić, 2024).

SWFs from oil-exporting countries such as the UAE and Qatar have begun investing in renewable energy sectors through subsidiaries such as Masdar owned by Mubadala (Stanley et al., 2024). In addition to diversifying their long-term portfolios through renewable energy projects, SWFs also have more measurable risks compared to short-term financial investments (Stanley et al., 2024). Other motives are also found to be more political and strategic in nature. Several SWFs have been found to invest in the energy sector to increase the geopolitical influence of their home countries, either by building energy dependence in partner countries or by controlling low-carbon technologies (Černohorský & Tesnerová, 2021; Klement, 2021) This can be observed in clean energy projects in the Global North, which are more strongly driven by regulatory pressures, global reputation considerations, or NZE targets, rather than

purely profit motivations (Babić, 2024). Meanwhile, SWFs originating from developing countries still maintain significant investment in carbon-based sectors due to considerations of short-term returns and the lack of integrated Environmental, Social, and Governance (ESG) standards (Babić, 2024).

Globally, SWFs present a range of strategies and commitments in energy investment. A report titled *Energy Industry Report* (Al-Attiyah Foundation, 2021) outlines the roles of SWFs in the energy sector. Each report discusses current investment topics in the energy sector that have become the primary targets of foundation members and partners. For example, Norges Bank Investment Management (NBIM), the SWF of Norway, and The New Zealand Super Fund (NZSF), have addressed decarbonization by divesting from high-carbon assets and increasing climate-based investments (Al-Attiyah Foundation, 2021).

However, Middle Eastern SWFs such as ADIA, Mubadala, and QIA maintain substantial oil and gas portfolios while expanding into renewables via subsidiaries (Al-Attiyah Foundation, 2021). Mubadala's subsidiary Masdar has built a 14 GW renewable portfolio across 35 countries, targeting 50 GW by 2030 (Al-Attiyah Foundation, 2021). Saudi Arabia's Public Investment Fund also supports domestic and international clean energy projects (Al-Attiyah Foundation, 2021). Moreover, many Gulf Cooperation Council SWFs and strategic investment companies, including Masdar and ACWA Power, are actively injecting substantial capital into renewable energy and hydrogen initiatives both domestically and internationally, targeting significant capacity expansion by 2030 (Poberezhskaya & Martus, 2024).

An international initiative called One Planet Sovereign Wealth Fund (OPSWF) was established in 2017 and founded by six major SWFs whose objective is to incorporate climate considerations into long-term investment decisions. This initiative helps fund managers explore opportunities related to climate change while supporting the energy transition (One Planet SWF Network, 2018). This initiative reflects a collective awareness among SWFs to address climate change and implement green investment policies. However, energy investment by SWFs in renewable sectors remains relatively small compared to their investments in oil and gas. This reflects a gradual transition process as well as the continued dominance of fossil energy markets in investment strategies.

Foreign investors such as SWFs have a strategic role in financing the energy transition, particularly in developing countries such as Indonesia. With long-term capital and cross-border investment orientation, SWFs represent one potential solution to the financing gap in energy transition. However, their active involvement also produces consequences, both in terms of policy influence and investment directions that may not always align with the domestic interests of the host country.

To analyze the dynamics of energy investment by SWFs in Indonesia through the case study of Mubadala Energy, this study employs the conceptual approach of International Political Economy (IPE) as its main theoretical framework. IPE is used

because it provides an understanding of the relationship between the state, the market, and non-state actors in the global economic system. Through this approach, this study examines the political and economic motives behind a country's investment and how interactions among these actors influence both national and international interests.

The state is the dominant actor in the global economy and consistently uses the market as a primary instrument to achieve its strategic objectives. Gilpin adopts a state-centric realism perspective, in which the state remains the primary actor among market forces and non-state actors (Gilpin, 2001). He explains the relationship between the state and the market by arguing that the state establishes the rules governing market operations while simultaneously being influenced by pressures from the global economy.

Unlike neoclassical economics, which views economic systems as mechanisms for market efficiency, Gilpin's IPE perspective suggests that economic activity is often used to achieve national power and political stability (Gilpin, 2001). He also rejects the notion that globalization has "overpowered" the state, arguing that although non-state actors have become increasingly influential, the state will always play the central role in shaping the structure of globalization (Gilpin, 2001).

One form of state involvement in global markets occurs through SWFs, which are state-owned financial instruments used for long-term objectives (Truman, 2008). SWFs represent their home states within global market dynamics and may be described as "investors," yet they operate with economic-political missions aligned with the strategic goals of their home countries (Johan et al., 2011). In this study, the concept of SWF (Truman, 2008) is used as an analytical extension of the IPE framework to analyze the participation of Mubadala Energy as part of Abu Dhabi's SWF in Indonesia's energy investment.

Truman proposed a set of principles known as "Best Practices" for SWF investment includes clear institutional structures, adequate governance frameworks, public transparency, and investment behavior that prioritizes market principles without disrupting the stability of host countries (Truman, 2008). Within this context, Truman's concept helps explain how SWFs such as Mubadala Energy operate not only as profit-seeking investors but also as instruments of economic diplomacy and geo-economic strategy for the UAE. This highlights the importance of examining SWFs not only from an investment perspective but also through the political-economic dynamics emphasized in the IPE framework.

By combining the IPE perspective with Truman's SWF concept, this theoretical framework allows the analysis of the role and motives behind Mubadala Energy's investment in Indonesia's energy sector. Meanwhile, in the global context state is not a neutral entity in relation to markets but rather an actor that shapes the structure and direction of markets in accordance with national interests (Gilpin, 2001). Through

the IPE framework, the state possesses political and economic interests, while markets and non-state actors function as instruments used to achieve these objectives.

In this context, Indonesia as a recipient country of energy investment must achieve the NZE target while shifting from fossil fuels to renewable energy. As a developing country, Indonesia faces fiscal, technological, and financial limitations that make it dependent on foreign investment such as SWFs (Haryanto, 2020). Meanwhile, Mubadala Energy acts as a state-owned non-state actor (Goulding et al., 2023). From the IPE perspective, it functions as a political-economic instrument of its home country to pursue long-term strategic interests. Therefore, this study argues although Mubadala Energy operates as an investor, it also carries the geopolitical functions of its home country. At the same time, Indonesia places the energy sector as both a domestic and international agenda, meaning that investment directions reflect both national and foreign interests (Kadewardana, 2021).

This research focuses specifically on the geopolitical motives of SWF investment through the case study of Mubadala Energy, which has invested in Indonesia. In this context, the main objective is to understand how SWF investment is not solely directed toward economic profit but also toward the strategic interests of the home country, namely the UAE.

2. METHOD

This research employs a descriptive qualitative approach with a single case study method to analyze the motives and role of SWFs in energy investment in Indonesia, which in the context of this research focuses on Mubadala Energy. This research uses a descriptive qualitative approach because it is exploratory and in-depth, with an understanding of the political-economic context and the interaction between state and non-state actors in the energy transition. As explained by John Odell, case studies in IPE are interpretative in nature and can be conducted by articulating the interests of actors within the global political-economic system (Sprinz & Wolinsky-Nahmias, 2004). This method can help reveal the dynamics of complex cases, such as the relationship between economic and political interests across countries. This research will also help assess investment not merely as an economic decision but also as a political strategy by various actors.

The unit of analysis of this research is Mubadala Energy, which has invested in Indonesia's natural gas sector. One of the projects that will become the initial focus is the Ruby Gas Field. This project will be examined as the motivation behind SWF investment in Indonesia's energy transition. In data analysis, this research uses thematic analysis, which examines patterns in SWF investment motives related to the IPE framework as well as Truman's SWF concept (Truman, 2008). This study critically examines the direction of Mubadala's investment within the framework of relations

between states (Indonesia and the UAE), the market (Indonesia's energy sector), and non-state actors (Mubadala Energy).

To ensure data validity, this research employs source triangulation techniques by verifying secondary data sources such as (Energy, 2022, 2021, 2023), Indonesian energy policy documents (RUEN and Presidential Regulations), reports from the Ministry of Energy and Mineral Resources (ESDM), scientific journals, academic articles, international reports from the IEA, as well as academic journals and media articles.

3. RESULTS AND DISCUSSION

Indonesia in Energy Investment

As a global commitment that has been signed through the Paris Agreement regarding climate change as well as the NZE target by 2060, Indonesia is currently undergoing an energy transition process. According to the Ministry of Energy and Mineral Resources (2024), the highest percentage of the energy mix in Indonesia in 2023 still relies on coal, amounting to 40.46%. However, this percentage has decreased from the previous year, which reached 42.38% (Ministry of Energy and Mineral Resources, 2024). The United Nations Development Program (UNDP) even states that natural gas, which currently accounts for 25% of primary energy consumption, will help replace coal as the main component of national energy by 2035 (Budiman et al., 2022).

According to the Ministry of Energy and Mineral Resources' Press Release (Ministry of Energy and Mineral Resources, 2021), natural gas has helped bridge the transition, as seen in efforts to develop clean energy technologies based on fossil fuels while accelerating emission reductions. In this context, the government will continue to rely on fossil energy, particularly natural gas, as an important component of the national energy mix. Gas is considered cleaner than coal and is also regarded as a bridging energy toward a low-carbon energy system (Affandi et al., 2025). On one hand, Indonesia seeks to promote clean energy, but on the other hand, it must maintain fossil energy sectors to meet domestic energy needs.

As a developing country, challenges related to regulation, financing, and fiscal limitations make Indonesia dependent on external investment in the energy transition process. According to the Directorate General of Oil and Gas (Directorate General of Oil and Gas, 2024), the Indonesian government has explicitly stated that Indonesia requires assistance both in terms of financial support, such as investment and project financing, and technical support such as technology transfer.

Indonesia possesses strategic documents such as the RUEN, but their implementation remains uncertain. This uncertainty causes investors to hesitate in investing in long-term energy sectors. As explained in previous studies, regulatory and fiscal uncertainty

can hinder the process of attracting investment (Sudarwanto & Daryanti, 2025). Therefore, the role of the state becomes crucial in the global energy market, both as a recipient of investment and as an effective regulator of national policies. This shows that Indonesia cannot escape from high domestic energy demand, technological limitations, and fiscal pressures that hinder energy transition. According to Gilpin's IPE perspective, states will always prioritize national interests within global market dynamics (Gilpin, 2001).

Based on this perspective, natural gas investment from Mubadala Energy can be viewed as a national compromise, where natural gas is considered cleaner than coal and serves as a bridge toward a full energy transition. According to the press release from the Ministry of Energy and Mineral Resources (Ministry of Energy and Mineral Resources, 2021), natural gas investment can ensure short-term energy security while increasing national revenue. Therefore, Indonesia realistically accommodates oil and gas investment as a strategy for economic growth and environmental sustainability.

From the perspective of IPE, the state has the authority to regulate the market and should not merely act as a passive recipient of investment but should actively manage financial flows to align them with national interests. In the Indonesian context, the question arises whether the state possesses negotiation strategies regarding the direction of foreign investment, such as in the case of Mubadala Energy, so that it aligns with the energy transition agenda. Considering dependence on external investment and the lack of strong and competent policies, Indonesia occupies the weakest position in the relationship between state and market. In line with Gilpin's IPE perspective (Gilpin, 2001), within the global political economy structure, developing countries often face power asymmetries that make them dependent on external actors when making decisions related to national interests.

Within Indonesia's energy investment policy framework, it appears that the country strongly accepts fossil energy investment. Although Indonesia formally supports renewable energy transition, in reality the government still provides opportunities for investors to invest in natural gas projects and maintain dependence on the oil and gas sector in order to sustain the national energy system. This political-economic pattern may hinder progress toward decarbonization.

Mubadala Energy Investment in Southeast Asia and Indonesia

Mubadala Energy is an international energy company owned by Mubadala Investment Company, a SWF owned by the government of Abu Dhabi, UAE. Initially, the company entered the energy sector in 2012 under the name Mubadala Petroleum, and in 2022 it rebranded to become Mubadala Energy. The purpose of this rebranding was to strengthen the company's position in the low-carbon energy sector through a strategic shift (Mubadala Energy, 2024). This demonstrates that Mubadala Energy operates not only to strengthen its corporate profile but also to support the strategic interests of its home country.

Based on its portfolio, Mubadala Energy has positioned natural gas as the backbone of its business. In 2023, approximately 69% of the company's production was dominated by natural gas, with total production exceeding 370,000 barrels of oil equivalent per day (boed) across several regions (Mubadala Energy, 2024). This focus on gas is considered an important component of energy transition because gas can serve as a bridge toward cleaner energy.

Mubadala Energy's main mission is to become an "international future energy champion" by promoting low-carbon energy sectors, prioritizing long-term value creation, and investing in energy transition technologies such as blue hydrogen and carbon capture, utilization, and storage (CCUS) (Mubadala Energy, 2024). However, to date Mubadala Energy continues to operate primarily in upstream sectors, particularly oil and gas exploration and production. Mubadala Energy has also published sustainability reports over the past three years as part of its commitment to ESG principles (Mubadala Energy, 2024).

Mubadala Energy manages assets and operates in 11 countries including the East Mediterranean, Russia, Pakistan, and Qatar. North Africa and Southeast Asia represent key regions in the company's global expansion strategy. Within Southeast Asia, Mubadala Energy has invested in Indonesia, Malaysia, and Thailand. These three countries remain highly dependent on fossil energy and face various challenges related to energy transition. Therefore, Mubadala Energy's investment patterns in Southeast Asia are closely related to the analysis conducted in this research as a comparison with its investments in Indonesia.

Mubadala first entered Southeast Asia through the acquisition of Pearl Energy in May 2008. Pearl Energy served as a strategic gateway that helped expand exploration portfolios in regions with increasing gas demand such as Southeast Asia (Mubadala Energy, 2008). Through strategic transformation, Mubadala Energy positioned natural gas as a key asset for business growth, in line with global trends toward using fossil fuels such as gas to help achieve Net Zero Emission targets (Mubadala Energy, 2021).

From 2021 to 2023, Mubadala's natural gas contribution increased from 63% to 69% (Mubadala Energy, 2023). This increase was supported by oil assets in Thailand and increased production from the Pegaga gas project in Malaysia. Mubadala has investments in Indonesia and Malaysia focused on oil and gas. In addition to increasing gas production, this transformation also reduced emission intensity across Mubadala Energy's operations (Mubadala Energy, 2023).

Mubadala Energy first operated in Malaysia through Production Sharing Contracts (PSC) in the SK320 block together with Petronas Carigali. From this contract, their well-known Pegaga Field project was developed offshore and designed to meet PETRONAS Minimum Environmental Specifications (MES), aiming to operate without hydrocarbon flaring and venting.

To date, Pegaga has become a major gas sector supporting Malaysia's LNG industry and is projected to strengthen national energy security. Mubadala Energy has also

implemented operational efficiency initiatives in its Malaysian offices by optimizing air conditioning systems, lighting, and using solar energy as supplementary electricity to reduce emissions (Mubadala Energy, 2023).

Meanwhile, in Thailand, prior to investing in oil assets in the Gulf of Thailand in 2022, Mubadala Energy implemented several energy efficiency projects. At the Ban Yen oil field, Mubadala Energy implemented a bi-fuel system (gas-diesel) that reduced diesel consumption by 15–20% and reduced gas emissions by 80,000 scf/d. At the Manora and Nong Yao fields, gas was also used for electricity generation, replacing diesel usage and reducing greenhouse gas emissions (Mubadala Energy, 2023).

Mubadala Energy entered Indonesia in 2004 with investments in upstream oil and gas through four offshore Production Sharing Contracts (PSC), namely Sebuku PSC (with Ruby Gas Field as the main project), West Sebuku PSC, Andaman I PSC, and South Andaman PSC, as well as share ownership in Andaman II PSC (Mubadala Energy Portfolio Indonesia, 2024). The most prominent project is Ruby Gas Field, which has been producing since October 2013. This project has become an important component of domestic gas supply, producing more than 280 billion cubic feet (BCF) of cumulative gas to date (Mubadala Energy Portfolio Indonesia, 2024).

Within the Ruby Gas Field project, Mubadala Energy acts as the operator and holds a 63% participating interest in the Sebuku PSC. The Ruby Gas Field is located in the Makassar Strait between Kalimantan and Sulawesi and produces gas that flows through a 312-kilometer subsea pipeline to receiving facilities in Senipah. Production from Ruby Gas Field not only supports Indonesia's energy sector but also strengthens food security by supplying gas to PT Pupuk Kaltim, one of the largest fertilizer producers in Indonesia (Mubadala Energy Portfolio Indonesia, 2024). The project also contributes to local and national economic development through social investment programs such as corporate social responsibility (CSR) initiatives.

Additionally, the Ruby Gas Field project implemented an Outlet Setting Temperature Optimization initiative to determine optimal water production temperature to reduce cooling system usage, successfully reducing greenhouse gas emissions by 67 metric tons of CO₂ equivalent (Energy, 2022).

Motives of Sovereign Wealth Funds of UAE

In discussing global investment, SWFs from countries such as the UAE, Qatar, and Saudi Arabia have invested in energy sector markets. These countries depend on oil and gas exports and use SWFs as economic instruments for the post-oil era while simultaneously expanding bilateral relations between countries. Countries in the UAE region have opportunities that they utilize to expand renewable energy sectors while influencing their geopolitical positions globally (Ali & Abdalla, 2025). Understanding the motives of their SWFs must also be accompanied by their domestic agendas as well as their objectives in maintaining dominance in the global energy sector within

the energy transition agenda. Several SWFs from Arab countries include Mubadala Energy, Abu Dhabi Investment Authority (ADIA), Qatar Investment Authority (QIA), and Saudi Arabia's Public Investment Fund (PIF).

Starting with ADIA, the institution has developed renewable energy projects such as wind and solar with a capacity of 51.4 GW, consisting of 22.5 GW of operational capacity and 28.9 GW of projects. However, these projects are not fully oriented toward complete decarbonization (ADIA, 2023). Meanwhile, PIF tends to focus on geostrategic projects as the main instrument of Vision 2030, prioritizing domestic clean energy projects such as green hydrogen, but still recognizing gas as part of the fuel transition within the national energy mix (2024).

However, QIA differs from the two. Since 2020, QIA has not directly invested in hydrocarbon sectors and has begun developing 50% of its power generation portfolio in carbon-free energy sources. When these three SWFs are compared, QIA appears to be the most progressive in promoting the global energy transition, while PIF focuses on domestic national needs and ADIA emphasizes long-term investment. In the case of Mubadala Energy, although the company has initiatives in renewable energy, it still maintains the dominance of natural gas in its investment portfolio. It cannot be denied that the motives of SWFs from Arab countries in energy investment do not always align with the objectives of the global energy transition but are still influenced by the economic and political considerations of their respective countries.

Energy Diplomacy between UAE with Indonesia

The UAE and Indonesia established diplomatic relations in 1976, and these relations strengthened during President Joko Widodo's visit to the UAE in 2015 (Rakhmat et al., 2024). Countries such as Saudi Arabia, the UAE, and Qatar represent dominant soft power actors in responding to the decline of global dependence on their energy exports (Guzansky & Zalayati, 2024). Since then, the UAE has begun to utilize its soft power in Indonesia through cooperation in several sectors, one of which is the energy sector. According to the UAE, Indonesia is viewed as a potential market due to its large population within the ASEAN region and its active role in the G20. Therefore, the UAE aims to expand its economic influence in Southeast Asia, particularly in Indonesia (Rakhmat et al., 2024).

Following this, strategic cooperation between Indonesia and the UAE was established through the Indonesia–United Arab Emirates Comprehensive Economic Partnership Agreement (IUAE-CEPA) (Asmoro, 2025). This agreement was signed by the Indonesian Minister of Trade, Zulkifli Hasan, and the UAE Minister of Economy, Abdulla bin Touq Al Marri, in Abu Dhabi on July 1, 2022, with the objective of increasing trade and investment (Ministry of Trade, 2022). This agreement required only nine months of negotiation (Yanti, 2023). This demonstrates the urgency and strong commitment from both countries. The UAE committed to investing in Indonesia following the bilateral visit between President Joko Widodo and Mohammed bin Zayed (MBZ),

resulting in 19 agreements worth USD 32.7 billion, including those in the energy sector that created an attractive investment environment for UAE investors, including SWFs from the UAE (Asmoro, 2025).

UAE also contributed to the establishment of the Indonesia Investment Authority (INA), Indonesia's first national Sovereign Wealth Fund (Yanti, 2023). In 2021, the UAE invested USD 10 billion in INA, and this fund was directed toward investments in several sectors such as infrastructure, tourism, energy, and agriculture (Yanti, 2023). This demonstrates that the UAE has the potential to become a major long-term investor. The UAE's national vision aims to utilize investment as a means to enhance soft power and economic diplomacy in countries with market expansion potential such as Indonesia (Yanti, 2023). This strategy strengthens relations while simultaneously reinforcing its global political economy influence. It also demonstrates that through UAE SWFs, the country can strengthen bilateral relations while maintaining its global energy interests. Even with the many opportunities available, the UAE will continue to pursue strong climate diplomacy in order to maintain its position while navigating the gradual global phase-out of oil and gas (Ali & Abdalla, 2025).

Objectives of UAE Investment in Indonesia

UAE utilizes oil and fossil fuels as sources of economic benefit within the global energy market (Ubaid & Gulrez, 2025). With abundant oil reserves, the UAE remains highly dependent on fossil energy as a major source of national revenue (Brzuszkiewicz, 2017). However, the global energy sector is increasingly influenced by the climate crisis and pressure for clean energy transition, which has made the UAE aware that reliance on oil and gas cannot serve as a long-term strategy (Fund, 2014; Lahn & Shapland, 2022). Therefore, the country has begun implementing economic diversification through overseas investment strategies carried out by SWF such as Mubadala Investment Company.

Through SWFs, the UAE does not only manage its oil revenue surplus but also directs investments toward sectors such as energy (Lavelle, 2017). Considering that the UAE invests significant oil and gas reserves through SWFs, this reflects a geopolitical dimension, where the UAE attempts to maintain its position in the global energy sector while expanding its role in the dynamics of actors within the global energy transition. Mubadala thus functions as an economic foreign policy instrument that allows the UAE to navigate the energy transition while still maintaining its role as a major energy-producing country (Lavelle, 2017).

Mubadala Energy does not operate merely as a source of financial investment but also plays a role within the UAE's economic foreign policy. Within the context of IPE, SWFs such as Mubadala are used by their home states to support long-term national interests and this investments are not solely intended to generate profits but also to deepen geopolitical influence and strengthen a country's position in strategic regions (Lavelle, 2017).

SWFs owned by states are not politically neutral actors (Truman, 2008). Their investment decisions are based on the strategic national interests of their home countries. The presence of Mubadala in Southeast Asia reflects a strategic expansion aimed at establishing long-term interaction within the energy sector in a region with rapidly increasing energy demand (Häfner et al., 2023). According to the report by the Al-Attiyah Foundation (Al-Attiyah Foundation, 2021), SWFs from countries such as the UAE invest in energy sectors as instruments to expand global influence in the global energy market.

Natural gas investment carried out by Mubadala Energy is positioned as a “bridging energy” within the energy transition process (Energy, 2022, 2021, 2023). Natural gas is considered cleaner than coal and oil because it produces lower carbon emissions, although it still belongs to fossil fuels (Affandi et al., 2025). Therefore, gas is used as an intermediate solution by exporting countries within the global energy market while simultaneously supporting the energy transition (León & Scipio-Cimetta, 2022). Observing Mubadala Energy’s portfolio, its investment projects remain dominated by natural gas-based projects.

Mubadala Sustainability Report 2023 emphasized that Gas demand will continue to increase in Southeast Asia and the MENA region (Mubadala Energy, 2023). This indicates that Mubadala Energy seeks to maintain a strategic position in meeting these demands through its gas projects. The Al-Attiyah Foundation (Al-Attiyah Foundation, 2021) also states that although SWFs such as NZSF and NBIM actively decarbonize their portfolios, many SWFs from oil-exporting countries such as the UAE, Qatar, and Saudi Arabia still invest heavily in gas. This occurs because gas serves as a bridge that maintains national market stability while responding to global pressure to accelerate the energy transition. Therefore, gas becomes a risk-mitigation strategy for SWFs facing global decarbonization pressures while simultaneously preserving national economic interests (Stanley et al., 2024).

Inequality and Implications of the Energy Transition Process

Developing countries such as Indonesia do not have equal relationships with investors such as Mubadala. In this case, Indonesia acts as a recipient country that depends on external capital to address costs in the energy sector, particularly in the transition toward clean energy. Within the global political economy structure, developing countries often occupy subordinate positions relative to global capital power and market mechanisms dominated by actors from developed countries (Gilpin, 2001). This imbalance makes it difficult for Indonesia to determine the direction of investment aligned with national energy transition goals.

Although Indonesia has strong commitments to renewable energy development and the achievement of the NZE 2060 target, the country still faces many limitations as a developing nation and therefore relies on foreign investment. However, the availability of investors willing to invest in energy sectors remains limited. In this context,

Indonesia tends to accept investments in the oil and gas sector, which still belong to fossil energy.

This narrative demonstrates that recipient countries do not always possess sufficient power to fully implement national development directions that have been established. Many factors require recipient countries to adjust their policy implementation directions, making them more pragmatic in accepting available investments while the energy transition process remains long-term. On one hand, natural gas supports the energy transition process, but on the other hand, excessive dependence on gas may hinder the development of renewable energy, particularly if the investment received focuses only on exploration without a roadmap toward renewable energy development.

Every investment carried out by SWFs contains strategic dynamics that go beyond purely economic considerations (Truman, 2008). As previously explained, Mubadala Energy does not only aim to improve its investment portfolio but also functions as an instrument of UAE foreign policy to expand influence in the global energy sector. Natural gas investment in Indonesia reflects how SWFs from the UAE actively strengthens their geopolitical interests.

Indonesia faces fiscal limitations, which make it difficult to reject oil and gas investments that provide short-term benefits for national energy security (Resosudarmo et al., 2023). This imbalance demonstrates how investors can dominate investment directions, while recipient countries such as Indonesia must adjust to the available options. As a result, oil and gas investments may not necessarily support long-term energy transition.

It can be understood that natural gas investment by Mubadala Energy supports Indonesia's national energy security in the short term whereas natural gas is used to support the energy transition process. However, gas investment may extend dependence on fossil fuels and hinder the energy transition process (Mattlar & Ekholm, 2025). When public and private funding continues to be directed toward oil and gas projects, fiscal and political space for developing clean energy systems becomes increasingly limited (Resosudarmo et al., 2023).

Although gas plays a role within the energy transition, its investment may shift focus away from renewable energy development and reinforce fossil-based national energy systems that lack long-term sustainability. Based on the findings analyzed in this study, Mubadala Energy's investment in Indonesia's natural gas sector tends to reflect the strategic interests of the UAE in expanding its economic influence in Southeast Asia rather than supporting sustainable energy transition. This finding aligns with Gilpin's understanding of political economy, which emphasizes the dominance of states within global markets (Gilpin, 2001), as well as Truman's argument that SWFs are not neutral actors but instruments of their home countries' foreign policy (Truman, 2011). Therefore, SWFs such as Mubadala Energy function not only as financial investors but also as actors carrying long-term geo-economic agendas.

4. CONCLUSION

The findings of this study indicate that Mubadala Energy's investment, such as the Ruby Gas Field project, has contributed to national energy security and economic growth. However, the direction of its investment remains focused on fossil energy, particularly natural gas, and this is not aligned with Indonesia's energy transition agenda, including the NZE target by 2060. Although natural gas is cleaner than coal (Gulliver, 2024), fossil energy still slows the achievement of long-term decarbonization (Dessens et al., 2016). Therefore, it can be concluded that Mubadala Energy's investment has an ambivalent character: on one side it supports energy security, but on the other side it maintains dependence on fossil energy, which slows the energy transition process in Indonesia.

For Mubadala Energy, as a representation of the UAE SWF, it is recommended to be more transparent regarding the strategic objectives and sustainability aspects of its energy investments, particularly investments in developing countries. Investments in the natural gas sector should be accompanied by long-term commitments to renewable energy projects, rather than focusing solely on gas as a bridge toward clean energy. The UAE government also needs to ensure that its investment motives are not solely economic or geopolitical in nature but also contribute to the global agenda of decarbonization and sustainable development in cooperation with other countries.

For stakeholders in Indonesia's energy sector, it is recommended to develop regulations related to energy transition in a more targeted manner. One reason why investors rarely invest in the long term is that the host country lacks a strong policy structure (Clougherty & Zhang, 2020). If a solid regulatory foundation is established, it can increase the country's bargaining position against non-state actors such as SWFs in investment negotiations, particularly in the energy sector. In addition, Indonesia's renewable energy roadmap should be implemented firmly and consistently by all stakeholders. This clear roadmap can help Indonesia, despite its limitations, serve as a benchmark for directing foreign investment toward supporting renewable energy transition. Indonesia must also strengthen transparency and accountability in managing foreign investments, particularly from countries that have strategic interests in the energy sector.

In the energy sector, the global energy market requires stronger and more binding ESG standards in managing SWF investments and large-scale cooperation. There needs to be a collaborative mechanism between public and private sectors in managing financing for clean energy projects in developing countries so that the energy transition is not merely an initial plan but is proven through its implementation. Likewise, the international energy sector must prioritize the principle of energy justice so that developing countries do not remain dependent on sectors that hinder their transition toward clean energy.

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CONFLICT OF INTEREST

The author declares that no conflict of interests.

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