



The Role of State Ownership Policy in China's Energy Sector: Challenges and Opportunities for Foreign Multinational Corporations in Controlled Economy

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ABSTRACT

This paper studies the state ownership policy with respect to the energy sector in China and the implications for foreign multinational corporations (MNCs) in a controlled economy. China's state-owned enterprises (SOEs) dominate sectors such as oil, gas, and electricity, leaving some doors open for international businesses to import their services into the market. This study employs a comparative legal perspective, case studies and quantitative methods to analyze the policies that discriminate in favor of SOEs, be that in terms of resources, financial and institutional policies. Furthermore, it discusses the ways that are designed to assist foreign involvement, including but not limited to joint ventures, technology transfer agreements and investment in clean energy, which are in tune with China's development models.

The research puts more emphasis on the fact that China's energy industry is both a controlled sector with state-owned enterprises' dominance and low-cost competitiveness as well as a growing center of the latest technologies relevant to a green economy. It however stresses the need for alliances, joint ventures and flexibility for foreign multi-national companies which seek to overcome regulatory hurdles and assist in the achievement of renewable energy targets in China. The insights explore the interactions between policy limitation and policy opportunity and, hence, the role of the state's approach to market regulation and the methods used by corporations to operate in one of the largest and fastest-growing energy markets. The findings thus enhance the understanding of international energy governance, the green economy agenda, and the role of international cooperation in achieving development goals.

Keywords: Chinese State Ownership Policy, Energy Sector's Regulation in China, Belt and Road Initiative, Foreign Investment Company in China, Foreign Multinational Corporation in China, Chinese Controlled Economy.

INTRODUCTION

In the Chinese energy sector, the policy of state ownership is not new, tracing its origin from the socialist style of the country that was introduced in the mid-20th century. The People's Republic of China was founded in 1949 (Sinton & Fridley, 2000). After that, the government centralized the economy and nationalized the major industries, such as energy, to promote economic self-sufficiency and independence. During the reform period, starting in the late 1970s, China began to liberalize the economy and opened many sectors to foreign investment. However, the oil, gas and electricity were maintained under state ownership (Kobayashi, Baobo, & Sano, 1999). This dual model allowed state-owned enterprises to hold on to the energy sector, but the government was still allowing some privations. It opened up the industry to foreign investments in areas that were not strategic.

State-owned enterprises (SOEs) are central to the flexibility and development of the Chinese energy sector, as they dominate industries such as oil, gas and electricity. Government steering, led by the state-owned sector, including through entities like the China National Petroleum Corporation (CNPC) and State Grid Corporation, also secures a considerable stake in energy with guidance of investment and development towards national solutions. Despite the dominance, some penetration and extension opportunities still exist, which directly impact Foreign Multinational Corporations (MNCs).

China has set the tone for energy policy, especially in renewables, with targets for renewable energy laid out in policies such as the 14th Five-Year Plan (FYP) for Renewable Energy (National Energy Administration of China, 2021). This National Development and Reform Commission plan includes benchmarks that already meet the requirements of existing regulations and are relevant to the national energy transition strategy. By 2025, China aims to achieve a 33% share of renewable electricity output and 18% from non-hydro renewable energy, up from a 28.8% renewable share in 2020. The strategy projects that by 2030, wind and solar electricity will make up 26% of total electricity consumption, with an annual growth rate of 1.47% (National Energy Administration of China, 2022) These goals highlight the expanding opportunities for foreign companies to participate in China's renewable energy market.

However, China's state ownership policy and regulatory system present a number of difficulties for foreign businesses operating in this industry. The legislative landscape is complicated, with limitations on foreign investment and mandates to collaborate with state-owned enterprises (SOEs), which frequently leave foreign partners with little operational authority and impact. Furthermore, government assistance and favorable policies help SOEs level the playing field. To effectively take advantage of the possible growth prospects in China's energy industry, foreign multinational corporations (MNCs) need to overcome various legal and policy obstacles, adjust to the country's changing regulatory environment, and harmonize with its strategic priorities.

To fully understand the role of state ownership policy in China's energy sector, it is essential first to clarify what state ownership and its policy entail. Concepts of state ownership and related policy issues have changed dramatically over time, reflecting changes in theories about state involvement and functions in the economy. Prominent intellectuals such as Marx and Engels (1848), who predicted state ownership as an inevitable consequence of capitalist crisis, produced works that eloquently reflected the state-controlled economy of the early industrial era and its struggles. However, Smith (1776) supported the liberal idea. He put forward the theory of the "invisible hand" of the market, which developed the basis of the understanding of the state's participation in the economy and the interdependence of its activities. In the economic theory, he mentioned that the state has limited involvement in financial affairs and can only regulate it through policies.

In addition to economic policy, these economic theories formed a conceptual system of theories, policies, and laws regarding state ownership, whether the state should have ownership, and how to distribute public property. At the end of the 20th century, when the planned economy collapsed, and the issue of privatization of state and public property began to be widely implemented, the debate about state ownership was at the center of the world's attention. One of the main concepts of the transition economy is the transition from state control to a market-oriented economy, and scientists have put forward important theoretical concepts that define the relationship between its legitimacy and how the state participates in economic activities (Lin, 2011).

Many reactionary views and theoretical arguments about state ownership can be found in the literature of economic theory. Theoretical concerns about state ownership range from remedies for market failures to strategic sectoral management of national security. The economic theory of Keynes (1964) supports the tendency of state ownership to dominate during economic recession, which believes that government intervention has an important role in stabilizing the economy. On the other hand, neoliberal scholars such as Friedman (1962) believe that state ownership is incompatible with individual freedom and often leads to inefficiency, and attribute past economic inefficiencies and bureaucracy to state ownership.

These theoretical frameworks aim to identify the different ways in which the multiple causes, interventions, and forms of state ownership relate to different types of economies. Stiglitz (1994) criticizes economic reforms that control state-owned enterprises in transitional markets, emphasizing that these institutions must maintain a balance to avoid falling into the trap of market and government failure. Stiglitz describes the theory of monopolistic competition as a market structure in which there are many firms in an industry that produce similar but different products. It is recommended that state-owned enterprises operate independently, assuming that no company enjoys a monopoly and that each company operates independently of other companies. State ownership creates a variety of legal consequences associated with the economy it supports. Legislation passed by the state aims to strike a balance between government intervention in the economy and state monopoly. Using business theory to determine the legal limits of state ownership, Hart, Shleifer, and Vishny (1997) have explored the model of state participation in market economies.

The term “State Ownership Policy” is a concept that comprehensively includes the level of state authority over legal entities in any property and important sector for the country, majority or minority ownership, full ownership or strategic policy at that level of control. This approach to ownership is theoretically justified on the grounds of efficient provision of public services or control over sectors important to national interests (Krugman & Wells, 2009). By creating such policies in the economy, the government implements the goals of economic protection, such as the provision of common public services and the management of the country's important resources (Stiglitz, 1988).

For a number of important reasons, State Ownership Policy (SOP) is essential to socioeconomic development (Table 1).

1. **Strategic Sector Control:** State may identify certain sections of the economy as strategic for the security of the State, and as such, the need to protect state power is important in order to protect economic stability and sovereignty. This often includes industries such as transportation, energy, defense, and telecommunications. Because these are state-owned enterprises, the government can direct investments towards meeting the long-term strategic requirements of the nation, rather than focusing on short term market gains (Levy, 2001).

2. **Market Failures and Public goods:** state ownership often has a role in mitigating market failures and providing public goods or services. Common goods—like public health, primary education, and social services, national defense—are vital for the common well-being of a society and must be provided universally and equitably through direct governmental intervention (Stiglitz & Rosengard, 2015).

3. **Economic Stability:** Because SOP gives governments the capacity to moderate the cyclicity of the private sector, it can help maintain economic stability. Governments may stabilize output and employment by owning and running large businesses, which is essential during economic downturns (Musgrave & Musgrave, 1989).

4. **Social Welfare and Redistribution:** State-owned enterprises are frequently entrusted with achieving social as well as economic objectives. This may entail supporting social welfare programs and making sure that necessary services are accessible and reasonably priced. Governments are able to fund social programs and transfer money to minimize inequality by using the profits generated by state firms (Galal, Jones, Tandon, & Vogelsang, 1994).

5. **Infrastructure Development:** SOP is essential for the development of infrastructure, especially in poorer nations where the private sector might not have the resources or motivation to fund significant infrastructure projects. The allocation of necessary funds towards these initiatives, which are essential for economic development, can be done by state ownership (Islam & World Bank, 2002).

6. **Global Competitiveness:** State-owned enterprises can help a country become more competitive on the international scene in the age of globalization. Governments may guarantee that their economies are not disadvantaged in international trade and can compete with global firms by endorsing important industries and cultivating national champions (Cuervo-Cazurra, 2015).

7. **Sustainable Development:** SOPs and sustainable development goals are becoming more and more connected. Governments can influence corporate behavior in support of sustainable environmental policies, moral business conduct, and responsible governance by using their ownership shares (Sachs et al., 2019).

Table 1. The Key Statistics and Data Points Related to China's State Ownership Policy and the Energy Sector

Category	Data/Statistics
SOE Dominance in Oil & Gas Sector	SOEs account for 89.4% of total industry income in oil and gas extraction.
Renewable Energy Targets	By 2025, China aims for 33% of its electricity to come from renewable sources.
Non-Hydro Renewable Energy	By 2025, the share of non-hydro renewable energy is expected to reach 18%.
2020 Renewable Energy Share	In 2020, 28.8% of China's electricity came from renewable sources.
2030 Wind and Solar Goals	By 2030, wind and solar energy will account for 26% of total electricity consumption.
Annual Growth Rate of Renewable Energy	Renewable energy is expected to grow at an annual rate of 1.47%.
Primeline Energy Case (Gas Pricing)	Disputes over pricing led to a shortfall of approximately \$60 million.

Note: This table draws directly from the data within the article, offering key figures that impact China's energy landscape and foreign MNCs operating within the sector.

In China's energy sector, the state ownership policy functions as an economic strategy and a means to achieve broader socioeconomic objectives. With this policy, strategic oversight of essential sectors like energy may help

address market failures, ensuring economic stability and enhancing social welfare. By investing in a way that correlates with national interests rather than focusing on short-term market profits, the state can make investments aimed at long-term strategic goals. This strategy also promotes infrastructure development, enhances global competitiveness and supports sustainable growth.

State ownership policy in China's energy sector serves various functions, including protecting national interests and promoting sustainable development. It represents a combination of historical economic theories and contemporary strategic needs allowing the Chinese government to hold control over this crucial industry, which is important for security, stability and progress. Such a multifaceted role emphasizes that there is something unique about state ownership in managing energy resources in China.

LITERATURE REVIEW

The examination of state ownership policies, especially in the context of the energy sector in China and the ramifications for MNCs operating in controlled economies, is diverse and extensive. The purpose of this review is to present the main issues and outcomes addressed in 'what is known' studies and the limitations that this research is intended to address.

The Chinese energy market is dominantly occupied by state-owned enterprises (SOEs) as a considerable proportion of capital estate is invested in the energy sector. The interactions between such dominance and competition, as well as market features, have received a lot of attention from scholars. For instance, Duanmu (2012) proposes that MNEs need more hope owing to differences in the governmental policies of SOEs in which investments are made. It has also been found that García-Herrero and Ng (2021) make sure to specify that the oligopolistic structure is weakly competitive with SOEs, which enjoy easy access to resources, finances and the fulfillment of legal requirements.

Regulation structures for attracting direct and indirect foreign investments in the energy sector in China represent another equally important line of research. A particular law that scholars have engaged with, given its implications on the dynamics surrounding MNCs, is the Foreign Investment Law of January 2020. Professors Milhaupt and Zheng (2024) assert that while the desire behind the law is good and there is a hope that the law will help in leveling the playing field, the regulation is not effective owing to SOEs' reign and local regulatory complexities. In addition, studies conducted by Gammeltoft and Panibratov (2024) argue that the legal setting is still in the transition phase, with many policy reforms put in place to accommodate the government's goals. Overall, these studies suggest that foreign-based MNCs operating in such an environment should be flexible and turn around to changes in the regulations and policies governing the economy.

Although these policies create hurdles for foreign owned MNCs, particularly new avenues appear in the Chinese energy market and renewable energy. The Catalogue of Encouraged Industries for Foreign Investment also contributes greatly, as this shows where foreign investment would be welcomed. According to Jiang (2024), one of such opportunities lies in the Chinese government's goal of 2060 carbon neutrality. Cui, Liu, Sun, and Yu (2020) have also recognized this view, demonstrating that cooperating with SOEs in technologies such as solar or wind energy enhances technology process innovation and helps mutual gains.

Concepts drawn from institutional theory have been used recently to analyze the relationships between foreign Multinational Corporations (MNCs) and State-Owned Enterprises (SOEs) in the context of the Chinese energy market. In particular, Ko, Y. Chen, Chen, Wu, and Liu (2021) argue that the strategies pursued by foreign companies are in many ways influenced by institutional elements such as informal networks and state-business relations. This theory is important as it focuses on the local policies and customs essential for policy compliance. However, there is still a gap for further fieldwork that is primarily focused on understanding the dynamics of question in a real-life context, especially regarding joint ventures, technology partnerships etc.

Even if the current literature addresses approaches to implementing the challenges and opportunities faced by foreign MNCs in China's energy sector, it is not without limitations. Oftentimes, the studies usually do not delve into strategies which foreign firms may pursue in order to work well with the SOEs and also in the existing regulatory framework. Also, the issue of what benefits or other concerns brought out by the introduction of the 2020 Foreign Investment Law and what it means for foreign investment strategies is of developing significance. This paper therefore seeks further to fill these gaps in analyzing competition in the state energy economy for MNCs and formulate relevant strategies toward participation in the energy market in China. As such, the paper hopes to contribute to the ongoing discussion of foreign investment in controlled economies and extend practical advice to multinational corporations doing business in China.

METHODOLOGY

This study explores China's state ownership policy in the energy sector and its impact on foreign multinational corporations from the perspective of a comparative legal study. A comprehensive study of the Chinese regulatory framework pertaining to state-owned enterprises culminates in the legal instruments such as The State-Owned Enterprise Law, the Company Law, the Foreign Investment Law, and others. The relationship between these legal frameworks is studied with the aim of understanding which specific policies and procedures allow SOEs to outsmart others, such as additional access to resources, availability of funding, and fewer restrictions. This inter-jurisdictional comparison helps in unraveling relationships that exist within various provisions of the law and explains how the SOEs. In addressing why these laws exist, the paper strives to explain these laws as well as the practical aspects of state capitalism in the energy sector in China and thus the limitations and opportunities that the foreign actors face in this environment are clarified. This is particularly the case when there is a sizeable proportion of state-owned enterprises (SOEs) in strategic sectors like oil and gas, and electricity where the aim is to bring out both the regulatory and the real-life implications or constraints that foreign players encounter while seeking to penetrate into the Chinese market.

The first part observes the documented justification of state ownership policy in China. It entails the analysis of the state laws and regulations specifying the activities and rights of SOEs, particularly the State-Owned Enterprise Law, Company Law, Foreign Investment Law, and others. These policies and procedures are looked at in terms of how corners are cut to provide SOEs with those advantages over foreign firms.

To give viable illustrations of how MNCs work their way through the Chinese energy landscape, this study employs case studies of some of the most well-known SOE's in the country such as the China National Petroleum Corporation (CNPC), the China National Offshore Oil Corporation (CNOOC) as well as the State Grid Corporation. These cases were chosen because they performed some otherwise unique and representative functions in China's energy sector, specifically: CNPC's primary activity is oil exploration and production, and CNOOC's focus is on offshore oil and gas operations. At the same time, the State Grid Corporation is responsible for electricity transmission and distribution, which makes it clear that the strategic functions and influence of SOEs in China's administered economy are definitely varied.

Such case studies emphasize how these state-owned enterprises function in the controlled economy of China and elaborate on the peculiar limitations that foreign companies face while contesting for the market alongside such corporations. Through the examination of these cases, the research work demonstrates how each enterprise began to contain different elements of the assets-strategy imprinted policy of China's state capital: the focus on resource control, international collaborations, or infrastructure provision. This allows an adequate synthesis of the problems and prospects of foreign MNCs in the Chinese market.

Furthermore, other relevant sources included examining primary government documents such as the Catalogue of Encouraged Industries for Foreign Investment. Such a policy document lists industries in which foreign investors are facilitated or banned paving way for multinational corporations, for instance, through joint ventures, technology sharing, and investments in renewable energy development in the Chinese economy. Similarly, such policy reviews also take into account China's energy policies including sustainable development strategies and national policies such as the BRI which encourages foreign investment in energy.

Although documentary materials remain at the center of interest, the research extends to include expert interviews in such areas as energy policy, Chinese law, and international investment as well. Other data source revealed in delved explores, assist understanding of the multifaceted regulatory regime located within China, which exerts pressure on subsuming foreign MNCs. This input lays the groundwork for how these firms can conceive the major legal defense mechanisms of the country where SOEs control the areas.

The investigation is also based on the institutional framework seeking to understand how insiders and outsiders use the tools of political economy to influence internal and external factors related to international business in China. This theoretical frame is utilized to help assess the limiting factors for foreign firms and possible strategies employed to overcome such constraints, including the establishment of joint ventures and adherence to local regulations.

To the extent that these factors are relevant, the research also contains quantitative analysis based on foreign direct investment (FDI) flow and stock data, market share statistics and operations of foreign companies in China's energy sector. This data allows us to estimate the effect of state ownership on the level of competition faced by foreign investors in the domestic market and supports claims regarding the certain advantages SOEs possess in the economy. The quantitative data also illuminates the level of foreign investment in some of the renewable energy, oil exploration and natural gas sub sectors.

Employing a mix of legal analysis, case studies, policy review, and quantitative data, this methodology entails a strong analysis both of the barriers and of the levers for foreign MNCs in China's state-driven energy sector. The paper tries to present on what ways foreign companies may operate in China's energy sector which is controlled by state-owned enterprises and where capital and cooperation are welcome under Chinese ownership policy.

RESULTS AND DISCUSSION

China's State Ownership Policy in the Energy Sector: Legal Foundations

China's state ownership policy in the energy sector is backed by an extensive legal architecture aimed at securing an orderly energy supply for growing domestic service sectors, sustainable development aims and continued economic stability. The model of economic development in China is based on the principles of Marxism-Leninism, with the ownership OF PROPERTIES being the central pillar of the economy. This model regards public property or state ownership as a means necessary for the social good and for the realization of extended reproduction consistent with the maintenance of public interests and excluding private ownership. China's economic model is different, and the priority is not oriented towards private ownership that responds to the production and distribution of resources but rather the ownership of the State, which ensures the protection of key, strategic industries, including oil, and fosters social justice and economic sustainability.

The policy is based on a number of critical laws, regulations and government policies that collectively constitute how the state defines and enforces its role with energy resources. These statutes also give a broader view of what China deems important strategic priorities and how it balances market mechanisms with state direction.

Underpinned by the Chinese Constitution and a number of laws, the socialist economic system of the People's Republic of China creates a thorough framework for the ownership and management of production means. With its emphasis on state ownership, this system embraces the socialist ideals of equality and common welfare and marks a radical departure from conventional capitalist systems.

Table 2. Constitutional Clauses that Play an Important Role in the Legislative Framework

Constitutional Clauses	Key Information
Socialist Public Ownership and Economic Principles (The National People's Congress of the People's Republic of China, 2023)	The idea that the means of production should be owned by the people is fundamental to China's socialist economy. As stated in the Constitution, this includes both collective ownership by working people and ownership by the entire population. This system seeks to strike a balance between fair distribution and individual contributions by operating on the principles of contribution based on ability and distribution based on work, replacing the exploitation inherent in capitalist systems (Weng, Lin, Liu, & Tian, 2016).
Natural Resource Management	Article 9 of the Constitution (The National People's Congress of the People's Republic of China, 2023) states that all natural resources, including forests, lakes and rivers, and minerals, are owned by the state and serve the interests of the entire population. This statement pertains to the management of natural resources. This clause guarantees state authority over these essential resources and requires their prudent use and preservation. The state's commitment to sustainable resource management is demonstrated by the stringent prohibition against any entity or individual appropriating or harming natural resources.
Renewable Energy Law of the People's Republic of China (2006) (The State Council of China, 2005)	It was introduced to encourage the development and use of renewable energy in China. The bill requires grid operators to buy renewable electricity from government-run power generators, reasserting state control over the nature of the new energy sector. This legislation provides a legal reference for the development of renewable energy, including (among others) wind farm, solar plants, biomass and geothermal power. Also, it contains government support measures such as financial incentives, subsidies and guaranteed grid access for renewable projects to ensure that state-owned enterprises take the lead in expanding capacity, while helping China to meet its sustainability goals. Article 4 of the Law states that the state shall encourage economic subjects of different ownership to participate in the development and utilization of renewable energy and shall protect the legitimate rights and interests of those who develop and utilize renewable energy.
The State's Role in the Primary Stage of Socialism	The PRC's Constitution maintains a fundamental economic system during the early stages of socialism, with a predominance of public ownership coexisting with many types of ownership (Chen, 2017) The coexistence of different ownership structures,

Constitutional Clauses	Key Information
Land Ownership and Usage Rights	<p>which represents a practical approach to economic development, characterizes this era. As stated in Article 7 of the Constitution, the state is essential to maintaining the expansion and unification of the state-owned economy.</p> <p>Article 10 (The National People's Congress of the People's Republic of China, 2023), which defines the ownership rights of land in urban and rural areas, addresses the intricacy of land ownership. While rural and suburban land is primarily owned by collectives with certain state ownership laws, urban land is owned by the state. In keeping with its general control over land use, the state is still able to demand or expropriate land for public purposes.</p>
Coal Industry Law of the People's Republic of China (2009 Amendment) (The State Council of China, 2009)	<p>The law provides the legal basis for the state to regulate coal exploration, production and distribution according to principles and regulations established by it which are related to the development of a reasonable use of coal. It also establishes requirements for coal mining operations, ensuring both miner safety, and the state's presence in protecting one of its most beneficial energy resources. Article 6 of the Law states that the State shall protect the lawful rights and interests of the persons who invest in the exploitation of the coal resources according to law and the State shall protect the sound development of State-owned coal mines. This highlights the responsibility of state-owned enterprises for coal-resource management.</p>
Rural Collective Economic Organizations	<p>The dual operation system, which combines centralized and decentralized operations based on household contracts (H. Li et al., 2022), is introduced in rural regions by Article 8 of the Constitution. This structure makes it possible for both urban and rural communities to adopt different cooperative economic models, guaranteeing that collective ownership will always play a big role in the economy. For these communal forms to flourish and be sustainable, the state must play a crucial role in preserving and advancing them (J. Wang & Wang, 2024).</p>
Electric Power Law of the People's Republic of China (2018 Amendment) (The State Council of China, 2018)	<p>The law gives the Chinese state wide-ranging power over the electricity industry, ranging from generation through to transmission and distribution. The state manages everything, from electricity pricing to power structure investments to clean energy promotion. It is the only mandatory requirement on this matter that SOEs would lead the electricity sector in order to show they, thus the government's commitment to have control/rule over how and at what pace industry will grow. It means that the electricity supply is secured and that the innovation of power sources serves national economic reasons just as geological development.</p>

As shown in Table 2, these constitutional clauses create a legislative framework that has a significant impact on China's socioeconomic structure. It defines the interaction between the state, the market, and the populace in addition to dictating how money and resources are distributed. China has taken a unique approach to balancing socialism with market-oriented practices, as evidenced by its economic policies that adhere to socialist principles while implementing practical reforms. In conclusion, the PRC's legal and constitutional frameworks provide a complete framework for regulating the economy by providing for a variety of ownership and operation structures while placing a strong emphasis on public ownership and state control. China's system is a reflection of its dedication to socialist ideas, tailored to the needs of the nation's development objectives and the current economic landscape.

Challenges for Foreign Multinational Corporations in China's Energy Sector: Controlled Economy

Foreign multinational corporations (MNCs) in China are perplexed by the country's regulated economy and its SOEs knitting into one another, a phenomenon clouding much of their business prospects in sectors such as the energy sector. Foreign companies wanting to access and establish themselves in the market are confronted with major cross-border obstacles, predominantly due to the high governmental grip, which is further underpinned by its critical strategic role for national security and economic control (Yu, 2014).

Market access barriers are one of the most serious obstacles. The energy sector is very regulated and there are strict rules on foreign investment. Foreign companies are either banned from entire sectors such as oil and gas exploration or compelled to enter into joint ventures with SOEs in others, including electricity distribution. These joint ventures typically result in the foreign partner holding a minority stake, which limits their control and influence over the operations. Furthermore, these partnerships often come with requirements for job creation, technology transfer, local development, raising concerns about protecting intellectual property and the potential risk of developing future competitors (Tordo, Tracy, & Arfaa, 2011).

State-owned enterprises (SOEs) hold a dominant position in China's oil and gas extraction sector,

contributing 89.4% of the industry's total income in 2019 (National Bureau of Statistics of China, 2024). This prevalence of state-owned enterprises (SOEs), bolstered by the strategic priorities of the Chinese government, adds another layer of complexity for foreign multinational corporations (MNCs) (C. Zhang, 2023). Companies such as CNPC and the State Grid Corporation wield significant control over infrastructure, resources, and distribution networks. These state-owned entities enjoy advantages from government policies, including subsidies, preferential financing access, and priority in resource allocation, which creates an uneven competitive landscape for foreign firms. Additionally, foreign MNCs face a complicated regulatory environment characterized by frequent policy changes, which increases uncertainty and compliance challenges (Tse, Meyer, Pan, & Chi, 2024).

More obstacles are price controls and subsidies in the energy sector. An illustrative case highlighting the challenges of price controls and subsidies in China's energy sector is the ongoing pricing disputes in the natural gas market, especially between foreign suppliers and domestic buyers (Boute & Fang, 2022). In China, natural gas pricing works within mixed systems which tend to create misunderstandings and sometimes outright disagreements. For example, gas prices applicable to the 39 industrial and commercial categories may be governed by market considerations whereas residential consumers and power generation sectors either have their prices set or directed by authorities (Lu, Xiao, Wang, Wen, & Peng, 2024). This tiered approach has serious implications for foreign businesses wishing to realize and protect stable and predictable revenue.

Also, some foreign LNG suppliers had some price disagreements with their buyers in China that took the position that the government-set prices for residential use were not reflective of the market-based price the supplier was seeking. For example, Primeline Energy, a Canadian-listed company, has been producing gas from the LS36-1 gas field in the East China Sea since 2014, with state-owned CNOOC holding a 51% stake and operating the field. The gas is sold to Zhejiang Natural Gas Development, a company owned by Zhejiang Energy and CNOOC. A take-or-pay contract required Zhejiang Gas to purchase a minimum amount of gas annually at a set price. However, in 2015, Zhejiang Gas requested price reductions following domestic price cuts and paid less than the agreed amount, resulting in a shortfall of about \$60 million. This situation put Primeline at risk of defaulting on project finance loans. Despite Primeline's protests, CNOOC, which also owns a stake in Zhejiang Gas, allowed the underpayment to continue (O'Sullivan, 2016).

For many key energy products—electricity and oil are just two examples—the Government sets lower prices to help stabilize the economy and protect consumers, which can be detrimental to the profitability of foreign firms selling these items. Also, the government sets the prices for energy products such as electricity and oil so that they are affordable and the economy is stabilized. Although these controls allow for economic stability, they can also hinder the earning capacity of foreign businesses (Z. Zhang, 2018). Besides, the SOEs are financially backed up by subsidies and therefore have a distinct advantage over the foreign firms; this makes it nearly impossible for the foreign MNCs to be profitable. It is a strategic industry with the government focus on national security, so there will be policy shifts and uncertainty that is the nature of the energy sector in China (Sallai, Schnyder, Kinderman, & Nölke, 2024). These changes that foreign companies have to be flexible to may affect long term investments and strategies.

This much policy volatility, especially in the energy sector, creates a risk for any foreign multinational corporations (MNCs) ready to invest or expand in China. Changeable and volatile government interference makes it hard for foreign entities to fix long-lasting, viable investment plans. As a result, this volatility often requires MNCs to implement more moderate, passive plans and, therefore, postpone or reduce the levels of their investments and look for more adjustable operational approaches. The absence of regulation creates a risk premium for foreign companies as well which causes them to incur higher expenses on upholding compliance, potential infringement disputes and uncertainty over market access. There are also national security implications for the sector, so foreign MNCs receive extra scrutiny and limitations, particularly with regard to critical infrastructure and supply.

Opportunities for Foreign Multinational Corporations

Such a catalogue calls for foreign multinational corporations (MNCs) in great numbers to finance specific industries in China especially since it is related to green and environmental nurture development. The 2020 version of the Catalogue of Industries Encouraged Industries for Foreign Investment published and released on 28th December 2020 by the Ministry of Commerce and the National Development and Reform Commission sets aside certain sectors which are regarded as strategic and comically sufficient in the realm of encouraging foreign presence in this emergent country on the economy, energy water and climate change dams, pretty much the majority tend to be most welcomed (National Development and Reform Commission of China, 2020).

In China's energy sector, which is rich in fossil fuels, state ownership rules coexist with governance elements aimed at attracting foreign direct investments, particularly in areas that are essential to achieving the state's development objectives. The focus on green industries, which are also the sectors in which foreign firms lack

transparent licenses under sovereign economics, is the exact opposite. Showcasing industries mainly focus on energy development and services, and about 100 more items on energy resources efficiency, energy sources revival, retarding pollution, and undertaking environmental restoration. Around 20% of the quota is reserved for such forwards in all over 100 sectors, encouraging foreign entities to calculate in the country in 2020. This focus is aimed at smoke view hindering realizing addressing the increasing environmental issues that the country has such as air and water pollution and carbon emission all of which tend to hinder economic growth in China.

This draws attention to potential in fields including energy efficiency, pollution prevention, and renewable energy (Jakubczak, 2020). In these endeavors, foreign MNCs have particular importance in aiding China to realize its ambitious climate targets of meeting peak carbon emission by 2030 and carbon neutrality by 2060. Within this outlook, which is contained in the policy of the reigning regime, lays numerous prospects for MNCs that specialize in clean technologies to partner with Chinese companies and the state in an effort to make the economy green (Gur & Dilek, 2023).

Foreign investment is encouraged in sectors specified in the Catalogue such as the provision of energy saving services, resources of renewable energy construction, and technologies for pollution remediation (Golub, Kauffmann, & Yeres, 2011). The FI 2020 Encouraged Catalogue lists a number of industries pertaining to the energy sector where foreign multinational corporations will find opportunities. These sectors include the generation of renewable energy (solar, wind, hydropower, and biomass), energy efficiency technologies, pollution control, and rehabilitation of the environment. Foreign firms, for instance, can offer energy-saving devices such as high-efficiency equipment and smart grid technologies. The catalogue also draws attention to the demand for advanced technologies in renewable energy, in particular solar photovoltaics, offshore wind energy, and energy storage environments. In addition, the catalogue promotes foreign investments in pollution control sectors, including but not limited to emission scrubbers, water treatment plants, and waste management facilities, which are essential to the improvement of air and water quality in China and, at the same time, help achieve the country's strategic environmental objectives.

For instance, in the environmental structure, China intends to enforce the employment of energy saving techniques in industries such as manufacturing, aviation and construction to cut down on pollution since using coal, which is a carbon intensive energy source is wasteful. High efficiency equipment, smart grid technology, energy management system specialists should be able to meet the market need in these efforts for such technologies will reduce energy waste and streamline the utilization and allocation of energy usage within the Chinese industrial system (Pan et al., 2022).

Except for non-traditional power-generating units, the state of renewables in China, too, is developing rapidly in solar energy, wind energy; hydropower and biomass energy the government is stimulating growth. China has become the world's largest manufacturer of solar panels and wind turbines; however, it is still seeking foreign technological imports to construct fourth generation renewable energy systems (Zhao, Bai, Liu, & Liu, 2022). Foreign MNCs with advanced technologies have opportunities in solar photovoltaics, offshore wind energy and energy storage technologies. Chinese companies are facing problems yet unsolved like combining non-continuous renewable energy sources with the national power network, solving energy accumulation problems, and restructuring the generation to fulfill the growing demand for clean energy.

Besides renewables, prospects are also available within the fields of pollution and the environment. China has tried to clamp down on its notorious air and water pollution by implementing strict environmental policies. This has led to a market for such advanced pollution measuring and control technologies as emission scrubbers, water purification plants and waste disposal facilities. Through the available knowledge of environmental technologies, international companies and investors can assist China in improving its air and water quality, cleaning contaminated lands, and enhancing water treatment systems in cities and even rural areas (Antwi, Zhou, Xu, & Mustafa, 2021). Such technologies serve the short-term goal of pollution prevention, but at the same time are in conformity with China's longer-term objectives of transition into a circular economy in which waste pollution is reduced to the minimum and those resources are used many times over.

State-owned enterprises (SOEs) tend to dominate China's energy market. However, the authorities have acknowledged the necessity of certain foreign inputs, especially in the field of high technology and eco-friendly production. A strategy that most foreign MNCs employ is working with or forming partnerships with such Chinese SOEs as China National Petroleum Corporation (CNPC), China National Offshore Oil Corporation (CNOOC), and State Grid Corporation among others (Y. Li & Tong, 2009). The partnership affords MNCs an assimilation into the market since they are relieved from the daunting task of meeting various regulations and the SOEs already have a strong foothold in the market, enhanced by the government's support.

In the case of foreign firms, collaboration with SOE's opens up a wealth of resources like capital, infrastructure and political goodwill. For instance, foreign companies are allowed joint ventures with SOE's in

renewable energy projects, thus enabling them to penetrate China's huge energy market, without the risks that come with going into the market alone. Although purely business-oriented, these improvements especially focusing on next generation energy storage or EV infrastructure will help MNCs expand their market in China and help the country in the energy transition (Tan, Zhao, Polycarp, & Bai, 2013). On the other hand, such partnerships frequently feature technology sharing provisions, where MNCs offer knowledge in order to gain access to other country markets and undertake major development works.

In recent years, for instance, foreign MNCs have turned to work with local partners in the construction of offshore wind farms as part of MNCs' strategies for local renewable energy projects in order to achieve the set renewable energy goals in the country (Chang & Bruyninckx, 2011). These projects call for cutting-edge turbine technology, offshore building capacities, and grid connection strategies that foreign players often dominate. Also, collaboration in the electric vehicle (EV) battery technology and charging networks through joint ventures has also boosted the quick adoption of the EVs highlighting the win-win character of these collaborations (Jagani, Marsillac, & Hong, 2024).

The foreign MNCs have also been assisted by the central authorities in China with a variety of policies to raise the attractiveness of green energy and sustainable development. Central among the incentives are tax holidays, reduced corporate income tax rates, and exemption from import duties for foreign investors who put money into high tech or eco-friendly projects (Zhou, Li, & Gong, 2022). These fiscal advantages, together with simpler procedures for regulatory approvals, facilitate the entry of foreign companies into such markets as renewable energy, environmental protection, green technologies, etc.

In a similar vein, investments in renewable energy infrastructure in western China, which includes the regions of Xinjiang, Inner Mongolia, and Gansu, are usually accompanied by favorable taxation policies and low land rental charges (Harlan, 2023). These areas are of great significance to China in terms of wind and solar power generation and these foreigners who harness their potential are availed of a number of financial incentives by the government.

In addition to the above, such collaboration is welcomed by local governments who are always looking for international companies to engage in green projects as that is a goal of the Party's Five-Year Plans for environmental protection and development. Such achievements of the foreign companies would enable them to obtain more assistance from central and local governments in fulfilling their environmental obligations whether by way of technology transfer, setting up factories, or R&D (Clark, Reed, & Sunderland, 2018). As attractive as these opportunities may be, one cannot say that foreign MNCs invest there easily and return with their products and profits. The presence of foreign SOEs in core industries means that foreign firms must bear the cost of market protectionism and state interventionism.

However, MNCs need to be adaptable and skilled in navigating China's intricate regulatory landscape and state ownership frameworks, which often involve state-supported subsidies and strategic policy changes. While the prevalence of SOEs can restrict market access and profitability for foreign firms, the growing emphasis on sustainability and green innovation opens a pathway for MNCs to participate in China's managed economy and contribute to its evolving energy sector.

CONCLUSION

This study has focused on the complexities of China's energy sector while pointing out the challenges and opportunities encountered by foreign MNCs. The energy industry is primarily controlled by companies such as China National Petroleum Corporation and the State Grid Corporation, which act in accordance with state objectives. These state-owned enterprises are protected from market competition and enjoy policy guarantees, subsidies, and investment from the state, hence creating a scenario where the superiority of national and economic interests is guaranteed. Such centralized management of coal, electricity and land resources contributes to the monopolization of the SOE, making it difficult for foreign production to penetrate its market.

Along with this, China's general policies, especially the Catalogue of Encouraged Industries for Foreign Investment, create opportunities for foreign MNCs in the targeted areas. The catalogue suggests green industry activities across more than 100 sectors or sub-sectors, which further coincide with China's carbon emission targets for 2030 and 2060. These sectors emphasize renewable energy, pollution, energy efficiency, and sustainable development, creating markets for foreign firms to play a role in and profit from China's energy evolution. For example, the government has established expectations such as achieving 33% of electricity generation from renewable sources by 2025 while projecting high growth in both wind and solar capacities through 2030.

In order to strengthen foreign resources, China has put in place a number of favorable regimes, such as tax incentives, lower corporate income tax rates, exemptions on import duties, and simplified regulatory processes for clean technology and green economy projects. In addition, western China, with its prosperous wind and solar resources, supplements these with incentives like lower tax rates and cheaper land rentals. Such measures aim to facilitate foreign investments in projects that are supportive of China's green technology and eco-friendly objectives.

However, the complex institutional framework presents substantial difficulties for foreign MNCs. The policies often compel foreign companies to cooperate with SOEs, restricting these firms' operational independence and clout. These are designed in a manner so that SOEs retain the majority of the ownership and the foreign companies assume a minority stake in the company. Besides, foreign firms face the hassle of complying with the laws, turbulent policies, and uncertainties regarding technology transfer and protection of intellectual property rights.

On the other hand, foreign MNCs have access to new technologies and knowledge relevant to China's energy trade and potential in areas such as solar photovoltaics, offshore wind farms, energy storage systems and electric vehicle (EV) infrastructure. Joint ventures with Chinese SOEs have helped foreign companies enter the market and also achieve China's renewable energy objectives. For instance, advancements in EV batteries and offshore wind energy technologies have made it possible to improve grid connection, enhance energy storage and promote sustainable transport.

The growth of MNCs' operations is facilitated by an already existing focus on environmental and circular economy strategies. Pollution control technologies, waste management, and water treatment technologies are in significant need as China has to deal with air and water pollution issues. Foreign firms can help develop urban water systems, reduce emissions and clean up contaminated lands within the framework of China's sustainable development strategy.

Even though the state of Chinese SOEs and regulatory issues are significant concerns, foreign MNCs are likely to benefit from China's unambiguous objectives, incentives and support for green innovation. The role of the energy sector, which is part of the global green economy, offers foreign firms an alignment of business strategies to China's strategies and facilitates the shift to renewable energy and eco-friendly economies. Foreign MNCs are able to adjust the policy frameworks and utilize their innovative capabilities to respond to the challenges that exist in one of the largest and most active energy markets in the world.

To summarize, the energy market in China can be seen from two distinct facets: firstly, it is a regulated single monopoly market, and secondly, it is also growing into the world's green energy hub, which offers distinct advantages as well as challenges to foreign multinational firms. From this analysis, the significance of alliances, joint ventures, and flexibility in the operations of the energy sector in China is brought to the fore. Further studies might assess the timely outcomes of such efforts as collaborations as well as foreign contributions to the Chinese green power market in the years to come.

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