



Land law and renewable energy development issues in Vietnam

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Abstract

The Land Law 2024 of Vietnam is considered a significant legislative achievement for Vietnam, introducing progressive changes, notably provisions allowing multi-purpose land use, such as the development of solar energy projects on the same agricultural or aquacultural land. This helps Vietnam align with the global trend of transitioning to renewable energy sources. This article analyzes the relevant provisions of the Land Law 2024 concerning renewable energy development and examines international experiences to propose improvements to Vietnam's land law for sustainable development.

Keywords: Renewable energy, land law, sustainable development, solar energy

Introduction

Alongside the globalization of the economy, the demand for energy is increasing rapidly due to the growth of production and business activities. However, the primary energy sources used today are fossil fuels (such as coal, oil, and gas), which are non-renewable and are depleting while causing significant environmental pollution. Therefore, the 4th Industrial Revolution has impacted the energy structure by shifting from fossil fuels to renewable energy (RE) to achieve sustainable development. The transition to renewable energy requires changes in policies, laws, technologies, etc., where the law is one of the fundamental elements that creates a premise for the investment and development of renewable energy in each country (Tinh, 2024). International efforts towards this have been great, as evidenced by climate change legislation related to the energy sector. (Ying & Chao, 2023) ^[2]. In 2014, 164 countries implemented policies to promote RE (Huyen & Quyen, 2024) ^[3] and national renewable energy laws will also come under pressure to converge or harmonise to facilitate information sharing and trade (Crossley, 2015) ^[4]. Vietnam is no exception and is aligning with the inevitable trend of transitioning from traditional energy sources to RE. With a highly advantageous geographical position, Vietnam has significant potential for various types of RE, including solar, wind, and biomass energy. As of 2022, the total capacity of renewable energy sources in Vietnam reached 20,626 MW, and the country is considered one of the fastest-growing RE markets globally (Trinh, 2014) ^[5]. To achieve its RE development goals, Vietnam has engaged in several international commitments related to RE, such as the UN Framework Convention on Climate Change (UNFCCC) in 1992, commitments at COP 26, 27, 28, and the Political Declaration establishing the Just Energy Transition Partnership (JETP). Concurrently, Vietnam has integrated RE development into various legal frameworks to promote the effective exploitation and increase the share of renewable and new energy sources in the country's energy production and consumption (Decision No.1658/QĐ-TTg), although RE remains a relatively new concept in Vietnam, and no specific law governs it. Currently, it is addressed within related legal documents such as the Land Law and the Environmental Protection Law. The most notable are the provisions in the Land Law 2024 regarding multi-purpose

land use for agriculture and aquaculture in conjunction with RE projects (Article 218 (1) ^[7] (g) The Land Law 2024). Therefore, the issue at hand is how to effectively implement these provisions concerning RE development in practice. This article aims to assess the new Land Law's provisions related to RE development and propose solutions for improving Vietnam's legal framework based on the legal experiences of other countries.

Material and methods

To evaluate the relevant provisions of the Land Law 2024 concerning renewable energy development, authors use some effective methods such as: descriptive legal research, qualitative legal research, analytical legal research. Another method is evaluate the renewable energy development in Land Law 2024.

Results and discussions

1. Fundamental aspects of renewable energy development

Definition of Renewable Energy

From a scientific perspective, energy is understood as the ability to perform work and can exist in various forms such as electrical, potential, kinetic, chemical, and others. Energy plays a crucial role in global industrial revolutions. Currently, energy can be classified into two types: non-renewable and renewable energy (RE).

Non-renewable energy refers to traditional energy sources like coal, oil, and natural gas, which are derived from natural resources that regenerate very slowly or are non-renewable. As a result, these energy sources deplete over time and contribute to environmental pollution.

In contrast, RE (often referred to as clean energy) is a broad concept with varying definitions in different countries and regions. The laws of the People's Republic of China and the Philippines define RE based on its source. RE includes energy derived from wind, solar, geothermal, water, biomass, and other renewable sources. RE is also energy produced from sources that can naturally replenish and do not deplete over time, such as solar, wind, hydro, and other renewable energies.

In Vietnam, the definition of RE was previously stated in Article 43 of the on Environmental Protection Law 2014: "Renewable energy is energy derived from water, wind,

sunlight, geothermal heat, ocean waves, biofuels, and other renewable energy resources.” (Article 43 The Law on Environmental Protection) ^[8]. However, as of January 1, 2022, this law expired and was replaced by the Law on Environmental Protection, which no longer defines RE but includes policies on RE development in Article 5, Clause 3, and Article 64 with requirements for RE use in planning. In summary, the broad concept of RE can be outlined as follows: RE consists of energy forms generated from natural resources that are renewable, such as solar energy, wind energy, biomass energy, ocean energy, geothermal energy, and hydro energy.

Characteristics of renewable energy

RE is gradually replacing traditional energy sources derived from natural resources and provides significant benefits in reducing carbon emissions and other environmental pollutants. RE has distinct characteristics that are often seen as its advantages compared to traditional energy sources:

Non-Depletion: Unlike fossil fuels (such as coal, natural gas, or oil), which have depleting reserves, RE sources do not deplete with consumption because they are derived from natural resources that regenerate in a cyclical manner, supporting a sustainable energy system. For instance, solar energy is generated when sunlight hits the Earth. Solar panels convert sunlight into electricity through the photovoltaic effect, and this electricity can power devices, lighting systems, or be stored in batteries. The continuous sunlight replenishes the energy, making this natural source perpetually renewable.

Availability and Distribution: RE is widely available and distributed around us, making it easily accessible in daily life. A significant advantage is that the use of RE does not cause environmental pollution because it is naturally replenished and does not emit harmful gases or pollutants that could damage the ozone layer or the environment. This is a key benefit of RE that prioritizes its use today.

Renewability and Efficiency: RE can be regenerated from natural sources, but practical use requires large-scale systems. Therefore, investing in RE development projects and organizing installation and operation are crucial to maximize RE efficiency rather than individual use. Although the initial cost may be high, benefits can be enjoyed throughout the lifecycle of the RE systems.

Potential for Non-Renewability: RE can become non-renewable if used excessively and at high intensities, beyond the natural replenishment capacity of RE sources. For example, using crops for biofuel production, if not managed properly, can lead to land depletion and soil degradation. Additionally, deforestation for planting can destroy ecosystems and increase carbon dioxide levels in the atmosphere. This makes bioenergy unsustainable and can cause serious environmental issues.

2. Regulations of the Land Law 2024 regarding renewable energy development

On January 18, 2024, the National Assembly issued the Land Law No. 31/2024/QH15 (The Land Law 2024) which replaces the Land Law No. 45/2013/QH13 dated November 29, 2013 (The Land Law 2013) and takes effect from

August 1, 2024. The Land Law 2024 includes numerous amendments and supplements to address the evolving needs of Vietnam’s socio-economic development, including important provisions related to renewable energy development, as follows:

Firstly, the Land Law 2024 introduces detailed regulations on multi-purpose land use. Multi-purpose land use is a practical need in the context of Vietnam's rapid socio-economic development. For instance, combining the development of renewable energy sources (such as rooftop solar power, wind energy) on the same land area with agriculture, fisheries, etc. The Political Declaration establishing a partnership for a just energy transition (JETP Declaration) also includes requirements to ensure fairness in the energy transition, such as utilizing multi-purpose land for renewable energy production combined with agricultural development and aquaculture, to enhance energy access, create investment opportunities, generate employment, and increase the proactive involvement of businesses in the process of converting agricultural land for renewable energy development. However, the Land Law 2013 only stipulated the principle of using land according to its designated purpose and lacked mechanisms to regulate land use for multiple purposes, resulting in difficulties in implementation and numerous obstacles in accessing land for renewable energy projects (Quang & Mai, 2024) ^[9]. Therefore, the Land Law 2024 has specifically regulated cases where land can be used for multiple purposes (e.g., agricultural land combined with commercial and service purposes) and the conditions and requirements for multi-purpose land use in Article 218. This is a significant new development aimed at promoting efficient land use and addressing past issues, especially concerning renewable energy projects.

Secondly, over time, the development of energy projects has faced difficulties with land clearance due to the complexity of land conversion and allocation procedures. Current issues mainly revolve around unclear and overlapping regulations regarding land use conversion. Inadequate compensation rates mean that many projects, despite completing conversion and land allocation procedures, face challenges in land clearance. The Land Law 2024 has revised land pricing regulations, establishing that land prices will be determined based on market principles. However, the new land pricing is based on the current land use purpose and does not account for the land's value after conversion. For example, barren or sandy areas may have low market prices, but after being converted for renewable energy projects (wind or solar), they will significantly benefit investors and contribute to the local budget. Thus, land value increases when changing its use purpose. Similarly, farmers whose agricultural land is reclaimed for energy projects may receive compensation based on low market prices at the time of reclamation. Although this might seem fair at first glance, compared to the benefits the project brings after conversion, farmers still face disadvantages.

Additionally, land clearance does not yet consider the specific characteristics of renewable energy projects. Land reclamation for energy projects is permitted under Article 79 of the Land Law 2024, but the law does not clearly prioritize land reclamation for renewable energy projects, still categorizing it under the general condition of "real necessity." Consequently, land reclamation for renewable energy projects faces specific difficulties in decision-making and defining the scope of reclaimed land. For

instance, wind energy projects require sufficient land area for constructing wind turbines and storing materials for maintenance and safety, whereas solar energy projects can use rooftop systems or land areas suitable for cultivation or aquaculture. Clearly, renewable energy projects can be integrated with agriculture and aquaculture without separating renewable energy development from other land use purposes, making it unnecessary to completely clear the land. Instead, land use planning could integrate agriculture, aquaculture, and renewable energy development. Specific guidance is needed to provide a legal basis for decisions on land reclamation for renewable energy projects.

Thirdly, regarding land management responsibilities, the Land Law 2024 clearly defines the authority for planning, land allocation, and leasing as belonging to local people's committees and relevant agencies. However, for renewable energy projects, which are relatively new in Vietnam, planning or land allocation and leasing should involve input from various related agencies beyond land management authorities. The law does not specify the coordination responsibilities among these agencies, leaving unclear the responsibility of different agencies in developing renewable energy projects in Vietnam.

It can be seen that the Land Law 2024 includes several additions to improve the legal framework in the land sector and address the unresolved issues of the Land Law 2013 regarding renewable energy development. This indicates that the state has begun to pay attention to renewable energy projects in Vietnam. However, current regulations on renewable energy development are still relatively limited, and a comprehensive legal mechanism to develop renewable energy according to the Party and State's guidelines is yet to be established.

3. Some solutions for improving land law in vietnam to develop renewable energy

Based on the provisions of the 2024 Land Law, Vietnam needs to implement the following solutions to enhance the effectiveness of the new points in the 2024 Land Law related to renewable energy development:

Firstly: it is necessary to issue guidance on land use cases for renewable energy projects according to Article 218 of the 2024 Land Law (Cuong, 2017)^[10]. This guidance should clarify the requirements for land use combining agricultural, aquacultural, and energy development purposes. Additionally, the current law is limited to solar energy and does not cover other types of renewable energy. Therefore, it may be considered to amend the term "solar power" to "renewable energy projects." However, this terminology change should be carried out after Vietnam has completed its legal framework for renewable energy.

Secondly: regulations on land types, land valuation methods, and land use fees need to be improved. The market value of land should be assessed based on its value after changing the purpose of land use. For wind and solar power projects, it is proposed that land use mechanisms could include: integrating renewable energy projects with agricultural production. Project investors would not need to change land use purposes. Renewable energy project investors could lease land from farmers for the project, with the lease rate adjusted by mutual agreement. Farmers would continue agricultural production, provided it does not affect the operation of the renewable energy plant.

Thirdly: specific guidance is needed on cases of land recovery for socio-economic development for national and public interests, specifically for renewable energy projects. This could involve clarifying the priority level of renewable energy projects without requiring proof of their necessity. Additionally, regulations should be established to bind the responsibilities of individuals and organizations in coordinating land clearance for renewable energy projects.

Fourthly: it is essential to expedite the development and implementation of relevant plans, including: the National Power Development Plan for the period 2021 – 2030, with a vision to 2045 (Power Plan VIII) approved by the Prime Minister in Decision No. 1264/QĐ-TTg dated October 1, 2019; and the National Energy Master Plan for the period 2021 – 2030, with a vision to 2050 approved by the Prime Minister in Decision No. 1743/QĐ-TTg dated December 3, 2019.

Fifthly: continue to implement Decision No. 2068/QĐ-TTg, including: enhancing state management in the development and use of renewable energy; surveying renewable energy resources and establishing reasonable planning and development plans for renewable energy sources. Additionally, mechanisms, policies on land, taxation, and credit incentives related to renewable energy development need to be reviewed and improved. Specifically, there should be special incentives for investors participating in renewable energy projects in Vietnam according to current regulations.

Sixthly: there needs to be coordinated management among agencies involved in land planning and allocation for renewable energy projects. Similar to the experiences of India and China, Vietnam could delineate specific authorities and responsibilities for each relevant agency in planning, land allocation, and leasing for renewable energy projects. At the same time, international cooperation should be strengthened to learn valuable experiences in renewable energy development, including management and implementation of land law regulations related to renewable energy.

Conclusion

In sum, using RE to replace traditional fossil fuels can help Vietnam achieve dual goals: advancing economic development while reducing production and consumption costs and addressing climate change issues in the future. With the provisions of the 2024 Land Law related to renewable energy development, it can be affirmed that Vietnam is gradually improving its legal system for renewable energy to fulfill international commitments and aim for sustainable development in line with global trends. Drawing from the experiences of other countries, Vietnam needs to implement practical solutions to build a legal framework for renewable energy development and maximize the effectiveness of renewable energy sources, thereby accelerating the green transition and economic development in Vietnam.

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