

Legal Discourse of the New and Renewable Energy to Green Power Plants to Realize Green Investment in Indonesia

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Abstract. Environmental protection in a country is sometimes hindered by implementing the country's political goals. Indonesia's development achievements in 2015- 2019 are still not focused on green investment. The method used is normative legal research and conceptual approach. The potential for new and renewable energy is very abundant in Indonesia; the Institute for Essential Service Reform in 2019 provided data that the hydropower potential is 75 gigawatts, geothermal 28 gigawatts, bioenergy 33 gigawatts, wind 61 gigawatts, solar 208 gigawatts, and ocean currents of 18 gigawatts, but in the period 2014 to the first quarter of 2019, in terms of the Manufacturing and National GDP, the oil and gas industry still the highest contributor to Indonesia's GDP. Indonesia, in essence, does not yet have legislation that regulates the use of new and renewable energy. However, the Government already has a draft law of new and renewable energy, which has entered the stage of harmonization in the House of Representatives of the Indonesia Republic in 2022.

Keywords: Investment, New and Renewable Energy, Green Power Plants

1 Introduction

Environmental protection starts with ecological awareness, a concern for the world community towards the environment due to environmental problems [1]. Besides that, the prevention and control of pollution and ecological damage require the cooperation of environmental experts and various scientific disciplines to work together to examine the factors that hinder or encourage the development and development of the environment in a country [2]. Environmental problems are

becoming more prominent and more widespread problems. The impact caused by environmental issues is not limited to one ecological aspect but is interrelated between one part and another. If one piece has a problem, the other elements will also be affected. This is due to the nature of the environment, which has multi-chain relationships that influence each other as a subsystem [3]. This environmental problem occurs in the local or national scope and regional to global. Global environmental issues that occur result of development continue to increase. The Industrial Revolution to the increasingly rapid evolution of technology have made many changes that have made humans dominate nature (Baiquni, 2015). In the period 1950 to 1980 alone, there were many global environmental problems, such as the haze problem in Los Angeles, Minamata and Itai-itai disease in Japan, the Chernobyl nuclear reactor explosion in Russia, the leaking of a pesticide factory in Bhopal, India, floods and drought that hit parts of Africa, India, Latin America, and Asia [1]

Environmental protection in a country certainly requires structural cooperation between the government and stakeholders. One of the efforts made by the government to protect the environment is through ecological law. Indonesia currently has many rules and regulations related to environmental protection and management. The Law of the Republic of Indonesia Number 32 of 2009 concerning the Protection and Management of the Environment with the amendments contained in the Law of the Republic of Indonesia Number 11 of 2020 concerning Job Creation is the best masterpiece in environmental protection. It is the central regulation for environmental protection and management in Indonesia.

Law enforcement is the last link in the regulatory chain of environmental policy planning. The regulation cycle (regular chain) of environmental policy planning consists of legislation, regulation/setting standards, licensing/issuing permits, implementation, and environmental law enforcement/control [1]. Environmental law enforcement can be carried out in a preventive and repressive manner. Preventive enforcement of environmental law can be carried out through supervision and guidance by state administration officials to comply with regulations. Repressive environmental law enforcement can impose sanctions or court proceedings to end violations, restore the environment, and compensate victims of environmental pollution and damage if an act violates regulations. Based on the division of the types of environmental law enforcement, it is clear that ecological law enforcement can be carried out through three legal aspects: administrative, criminal, and civil. Enforcement of administrative aspects of environmental law aims to prevent violations and fulfill the specified requirements so that pollution and ecological damage do not occur. Meanwhile, environmental law enforcement in criminal and civil aspects seeks to punish the perpetrators of environmental pollution and destruction in the framework of ecological restoration [1].

Environmental protection in a country is sometimes obstructed by the implementation of the country's political goals. Politics here can be defined as collective decision-making or general policy-making for society [4]. Another opinion defines politics as decision-making through public means, where someone personally makes decisions and that the whole of such choices is the "public sector" or "public sector" of a country.[5]. In this case, a country's environmental policy certainly varies according to the politics of the country itself. In the Attachment, Regulation of the President of the Republic of Indonesia Number 18 of 2020 concerning the 2020-2024 National Medium-Term

Development Plan, Chapter 2, which discusses Strengthening Economic Resilience for Quality and Equitable Growth, it's mentioned that in the next five years, the economic development in Indonesia is directed to improve financial resilience which is shown by the ability to manage and use monetary resources in producing goods and services with high added value to meet the domestic and export markets. Even Indonesia's development achievements in 2015-2019 are still not focused on the green investment, this can be seen in the development achievements in 2015-2019 published by the Government of the Republic of Indonesia, namely: the had been an increase in the production of food and agriculture, the sector achieved a rice surplus of -2,8 million tons in 2018 and average growth of 5,5% p.a. in meat production; food security rate fell to 7,9% in 2018; fish production and consumption increased to 14,1 million tons and 40,7 kg/capita/year respectively in 2018; electrification ratio for households reached 98,3% in 2018; 8 industrial estates/special economic zones are currently in operation; foreign tourist arrivals increased from 9,4 million visitors in 2014 to 15,8 million, with foreign exchange earnings of US\$ 19,3 billion in 2018; contribution of creative economy exports reached US\$ 19,8 billion or 11,8% of Indonesia's total exports in 2017; a cumulative 11,88 million new jobs created in 2015-2019 and a reduction in the open unemployment rate to 5,82% in 2019; and increased real investment from Rp 545,4 trillion in 2015 to Rp. 721,3 trillion in 2018.

Objectives, Indicators, and Targets of The 2020-2024 National Medium Term Development Plan of the Republic of Indonesia, especially in improving the carrying capacity and quality of economic resources as a modality for sustainable economic development, is prioritize the improvement in new and renewable energy in fulfillment of energy needs as can be seen in the table, as we saw in the table that the satisfaction of energy needs by prioritizing the improvement in new and renewable energy is the main objectives. This can be seen in the Table of goals, indicators, and targets for 2024 in the 2020-2024 National Medium Term Development Plan of the Republic of Indonesia, which sets a mark in the form of meeting energy needs by prioritizing new and renewable energy with 9 (nine) indicators namely percent of new and renewable energy in the national energy mix; primary energy intensity; reduced final energy intensity increased capacity of new and renewable energy generators; natural gas production; use of biofuels for domestic use; coal domestic market obligation; percent of natural gas for domestic use; local component requirements in the new and renewable energy in the solar, bioenergy and geothermal sectors. Using fossil continuously harms the environment. Burning fossil energy sources will release gases such as CO₂ (carbon dioxide), NO₂ (nitrogen dioxide), and SO₂ (sulfur dioxide), which can cause acid rain, smog, and global warming. Leaking tankers transporting fossil energy and other accidents transported by sea also have the potential to pollute the oceans. In addition, in open-pit mining carried out to obtain fossil energy, land that has been mined will no longer be able to be used for agriculture and forest at a specific time [6]. Several studies have also negatively impacted the continuous use of fossil energy. The first research explains that steam power plants, especially in the loading and unloading lanes, have health impacts and environmental impacts in the form of non-carcinogenic effects, carcinogenic impacts, respiratory disturbance impacts, water pollution impacts, and land pollution impacts [7]. The second research explains that energy consumption, especially fossil energy, causes health expenditure to increase [8]. The third study states that the continuous production and consumption of fossil energy will harm the surrounding environment and the health of humans and other creatures [9]. Based on the above, the authors formulate the following problem: (1) Has

Indonesia accommodated the laws and regulations related to new and renewable energy? (2) What is the impact of the continued use of fossil energy in Indonesia?

2 Method

The research method used in this research is normative juridical. Normative juridical law research aims to find and formulate legal arguments by analyzing the subject matter [10]. In addition, this research is also known as library law research, which is carried out by examining library materials or mere secondary data [10]. Furthermore, the approach used in this study is the statute and conceptual approaches. The Statute approach looks at and analyzes all relevant laws and regulations regarding new and renewable energy. The researcher carries out the abstract process when the researcher needs help finding indicators from rules and regulations related to new and renewable energy by researching and analyzing books, articles, and other sources related to this research. Researchers use data collection techniques by studying laws and regulations, books, and articles related to research. The data obtained in this study were then analyzed using general normative juridical data analysis methods. The results of data collection techniques will be recorded, collected, analyzed, and categorized, and conclusions will be drawn to find general theories related to this research.

3 Result and Discussion

3.1. The Impact on The Continued Use of Fossil Energy in Indonesia

Using fossil continuously harms the environment. Burning fossil energy sources will release gases such as CO₂ (carbon dioxide), NO₂ (nitrogen dioxide), and SO₂ (sulfur dioxide), which can cause acid rain, smog, and global warming. Leaking tankers transporting fossil energy and other accidents transported by sea also have the potential to pollute the oceans. In addition, in open-pit mining carried out to obtain fossil energy, land that has been mined will no longer be able to be used for agriculture and forest at a particular time [6]. Several studies have also negatively impacted the continuous use of fossil energy. The first research explains that steam power plants, especially in the loading and unloading lanes, have health impacts and environmental impacts in the form of non-carcinogenic effects, carcinogenic impacts, respiratory disturbance impacts, water pollution impacts, and land pollution impacts [7]. The second research explains that energy consumption, especially fossil energy, causes health expenditure to increase [8]. The third study states that the continuous production and consumption of fossil energy will harm the surrounding environment and the health of humans and other creatures [9].

Based on the 2020-2024 National Medium Term Development Plan of the Republic of Indonesia, access to other energy sources, such as natural gas, has been continually expanded in Indonesia. As of 2018, 463,643 gas networks had been built for households and a cumulative distance of 10,942.5 km for transmission and distribution pipelines. Domestic demand for gas could be covered via the domestic market obligation (DMO) of 60% in 2018 for natural gas production. From 2014 to the

first quarter of 2019, the oil and gas industry still contributed to Indonesia's GDP in terms of Manufacturing and National GDP. From 2014 to the first quarter of 2019, the oil and gas industry still contributed to Indonesia's GDP in terms of Manufacturing and National GDP. Of the 21 priority Kawasan Industri/Kawasan Ekonomi Khusus outside Java, as of 2018, only 8 Kawasan Industri/Kawasan Ekonomi Khusus had been operational, namely Kawasan Industri/Kawasan Ekonomi Khusus Sei Mangkei, Kawasan Industri Dumai, Kawasan Industri Galang Batang, Kawasan Industri Ketapang, Kawasan Industri Bantaeng, Kawasan Industri Konawe, Kawasan Industri/Kawasan Ekonomi Khusus Palu, and Kawasan Industri Morowali. Investment in the priority Kawasan Industri/Kawasan Ekonomi Khusus reached Rp 179.9 trillion from 58 foreign and domestic investment companies. The development of other Kawasan Industri/Kawasan Ekonomi Khusus faces challenges in land acquisition, management, connectivity, competitive energy access, and low investment. The capacity of the national industry to process and export high-value-added products also remains limited. This caused the growth rate of the industrial value-added in the 2015-2019 period to be lower than the average national growth rate. The contribution of manufacturing to GDP has been stagnating at around 20% in the last four years. In the future, the performance of the national industry will be continually improved.

The potential for new and renewable energy is particularly abundant in Indonesia; the Institute for Essential Service Reform in 2019 provided the data that hydropower potential could reach 75 gigawatts, geothermal 28 gigawatts, bioenergy 33 gigawatts, wind 61 gigawatts, solar 208 gigawatts and ocean currents of 18 gigawatts [11]. In essence, the growth in the capacity of new renewable energy power plants continues to increase in Indonesia, this is until mid-2021, the capacity of power plants based on new renewable energy, which is clean energy, has increased to 217 megawatts. The additional total comes from the Malea hydroelectric power plant (90 megawatts), 9 units of mini-hydropower plants (56 megawatts), Rooftop solar power plant (13 megawatts), Sorik Marapi Unit 2 Geothermal power plant (45 megawatts) and bioenergy electricity (12.5 megawatts). In the last five years until 2022, the addition of new renewable energy power generation capacity is 1478 megawatts, with an average increase of 4% per year. In this case, the Government of the Republic of Indonesia continues to be optimistic about achieving the new renewable energy mix target, one of which is through the 2021 State Electricity Company Limited Liability Company Business Plan.(Semester I Kapasitas Pembangkit EBT Tambah 217 MEGAWATT, 2021).

Strengthening green investment in using new and renewable energy for power generation must continue to be carried out by Indonesia, especially by supporting regulations. This is because environmental policies need to be carried out by the community in the framework of a system of prevention and control that is carried out against environmental problems themselves [1]. In addition, environmental policies have benefits in the form of meeting the needs and welfare of the community related to ecological issues, which are a concrete manifestation of government authority [13]. Laws are the legal foundation that underlies government policies, primarily environmental and natural resource management [13]. In this case, the management of new and renewable energy in Indonesia must have a solid and comprehensive legal basis and be based on environmental law principles.

4 Conclusion

Environmental protection in a country certainly requires structural cooperation between the government and stakeholders. One form of environmental protection is to optimize the use of new and renewable energy to create green power plants. Strengthening green investment in using new and renewable energy for power generation must continue to be carried out by Indonesia, especially by supporting regulations. This is because environmental policies need to be carried out by the community in the framework of a system of prevention and control that is carried out against environmental problems. Various regulations to support green investment in Indonesia have essentially been enacted. Some of these regulations are contained in Article 3 paragraph (1) letter h, Article 12 paragraph (3), Article 15 letter b, Article 16 letter d, Article 17, Article 18 paragraph (3) letter g, Article 24 letter b and Article 30 paragraph (7) letter a of the Law of the Republic of Indonesia Number 25 of 2007 concerning Investment; Article 2 Regulation of the President of the Republic of Indonesia Number 16 of 2012 concerning General Planting Plans; Instruction of the President of the Republic of Indonesia Number 13 of 2011 concerning Saving Water Energy. Regulations related to green power plants have also been attempted by the Government of the Republic of Indonesia in the Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia Number 50 of 2017 concerning Utilization of Renewable Energy Sources for Electricity Providers, Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia Number 53 of 2018 concerning Amendments to the Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia Number 50 of 2017 concerning Utilization of Renewable Energy Sources for Electricity Providers Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia Number 4 of 2020 concerning the Second Amendment to the Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia Number 50 of 2017 concerning Utilization of Renewable Energy Sources for Indonesian Electric Power Providers, have not yet have regulations at the same level of the 'statute' that regulates the use of new and renewable energy. However, the Government already has a draft law of new and renewable energy, which has entered the stage of harmonization in the House of Representatives of the Indonesian Republic in 2022. The Government of the Republic of Indonesia continues to discuss the draft law of new and renewable energy. This regulation is expected to become comprehensive regulations to create a climate for developing new and renewable energy that is sustainable and fair so that all levels of society can feel the benefits.

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