

## Fair Legal Protection for Geothermal Development Companies that Already Have Business Licenses

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### Keywords

Legal Protection, Geothermal,  
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### ABSTRACT

*the objectives of this study are; 1) to know and analyze geothermal business licensing arrangements that have provided fair legal protection for geothermal development companies. 2) Knowing and analyzing the implementation of geothermal exploitation policies has provided fair legal certainty in protecting geothermal development companies. 3) To analyze and review the direction of equitable regulation to provide legal protection for geothermal development companies. This research is a mixed research method, namely normative juridical and empirical juridical. The type of research used in this study is qualitative research, which is research that can be interpreted as research that does not carry out calculations. Result of this research stated that Geothermal business licensing arrangements have provided fair legal protection for geothermal development companies. Regarding licensing, the legal basis or regulations related to licensing in the geothermal sector as stated in the interview results that the regulations consist of Law Number 21 of 2014 concerning Geothermal and Law Number 11 of 2020 concerning Job Creation, then there are PP No. 7 of 2017, PP No. 28 of 2016, PP No. 5 of 2021, and PP No. 26 of 2022.*

### INTRODUCTION

Indonesia is a country rich in mining materials. The minerals include gold, silver, copper, oil and gas, coal, and others. The excavated material was controlled by the state (H. Salim HS, 2007). As stated in Article 33 paragraph (3) of the Constitution of the Republic of Indonesia Year 1945 which states that: "Earth and water and the natural resources contained therein are controlled by the state and used for the greatest prosperity of the people."

Controlled by the State means the Right of State Control over natural wealth assets. The state is sovereign over the wealth of natural resources. The legal ownership rights of natural resources are the people of Indonesia. These two meanings constitute unity. The right to control the state is an instrument while "the greatest prosperity of the people" is the ultimate goal of natural wealth management (Adrian Sutedi, 2012).

Geothermal energy is also known as geothermal energy which comes from Greek. In Greek, the word "geo" means earth, and the word "thermal" means heat, so when combined, the word

geothermal means geothermal. Geothermal energy itself is generated and stored in the Earth's core. Compared to fossil fuels, geothermal is a clean energy source and releases few greenhouse gases.

Geothermal energy was originally regulated in Law Number 27 of 2003 concerning Geothermal Energy, but this regulation is now repealed and replaced by Law Number 21 of 2014 concerning Geothermal Energy. One of the differences between the two laws is regarding the categorization of geothermal as mining activities. The use of geothermal energy for power generation is generally done by looking at the resources of geothermal energy. If an area has geothermal heat that emits water vapor (steam), then the steam can be used immediately. The steam is directly directed to the turbine of the power plant to produce electrical energy.

After completion, the steam is directed to the condenser so that the steam condenses into water. This water is then recycled to become steam again naturally. However, if geothermal is a producer of hot water, then the hot water must first be converted into steam. This change process requires equipment called a heat exchanger, where hot water flows into the heat exchanger so that water vapor is formed.

Regulation of the distribution of authority related to the implementation of government affairs regarding the authority to manage the indirect use of geothermal for electrical energy purposes. Previously it was in the Provincial Government to the Central Government. In the sense of the withdrawal of elective concurrent government affairs as intended. This condition deviates from the criteria for government affairs, consisting of (1) The location is cross-regional; (2) Users across districts/cities; (3) The benefits or negative impacts across districts/cities; and (4) The use of resources is more efficient if carried out by the Provincial Regions.

Sugiharto Harso Prayitno as Geothermal Director of the Ministry of Energy and Mineral Resources said that the problem that is still often faced for geothermal development is when meeting with permits. Permits that are still hindering include recommendations from the Governor/Regent to borrow land for exploration and exploitation activities, technical recommendations from Perhutani, permits from the Ministry of Forestry, groundwater, and surface water use permits, project construction site permits from the National Land Agency, approval of Environmental Impact Assessments, Environmental Management Efforts, and Environmental Monitoring Efforts, as well as several related permits. Due to these permit problems, finally confusing the investor and developer.

Based on news reported by Consumer News and Business Channel Indonesia, geothermal business actors, namely geothermal energy provider companies, admit that geothermal-based electricity development in Indonesia is relatively slow. The electricity purchase tariff scheme is still a tug-of-war so the potential of 59 Geothermal Power Plants cannot be empowered, according to GeoDipa President Director Riki Ibrahim, this condition occurs because there is no meeting point regarding feed-in tariff scheme or geothermal-based electricity price in Indonesia.

The State Electricity Company wants to set a tariff based on the Cost of Electricity Supply, on the other hand, business actors ask for a feed-in tariff for up to 30 years. Therefore, including pricing by the State Electricity Company is also a problem in geothermal development. Another geothermal company that cannot operate but already has a complete permit from the Government is the Bedugul Geothermal Power Plant Project, Bali developed by PT. Pertamina Geothermal Energy and Bali Energy Ltd are still unclear as many problems surround the project.

Based on these phenomena and cases that have become legal issues, there is a gap between *dass swollen* and *dass sein* that there have been rules related to licensing before establishing and running geothermal companies, which have been regulated in Article 6 of Law Number 21 of 2014 concerning Geothermal Energy, but on *dass sein* or some geothermal companies that cannot operate but already have complete permits from the Government, namely Power Plants Geothermal geothermal working area Rawa Danodi Caldera Batu Kuwung Village, Padarincang, Serang, Banten.

The Rawa Dano geothermal project was designated as a geothermal working area through the Decree of the Minister of Energy and Mineral Resources Number 0026K/30/MEM/2009 dated January 15, 2009. Director General of New Renewable Energy and Energy Conservation of the Ministry of Energy and Mineral Resources and Kusdiana said that the construction of Geothermal Power Plants was hampered by residents' rejection. A similar rejection was made in September 2019, during which there was a demonstration at the office of the Ministry of Energy and Mineral Resources Citizens demanding that the project not proceed.

The cause of the non-operation of the Geothermal Power Plant project construction of the Rawa Danodi Caldera geothermal working area of Batu Kuwung Village, Padarincang, Serang, Banten is due to environmental issues. The issue of rejection brought by some people due to drilling for the construction of the Geothermal Power Plant project in the Rawa Dano Caldera geothermal working area in Batu Kuwung Village, Padarincang, Serang is considered to cause environmental damage.

Based on the background that has been described, a problem arises, namely; a) Have geothermal business licensing arrangements provided fair legal protection for geothermal development companies? b) Has the implementation of geothermal exploitation policies provided fair legal certainty in protecting geothermal development companies? c) What is the direction of fair regulation to provide legal protection for geothermal development companies?

Based on the background of the problem and the formulation of the problem above, the objectives of this study are; 1) to know and analyze geothermal business licensing arrangements that have provided fair legal protection for geothermal development companies. 2) Knowing and analyzing the implementation of geothermal exploitation policies has provided fair legal certainty in protecting geothermal development companies. 3) To analyze and review the direction of equitable regulation to provide legal protection for geothermal development companies.

Based on the formulation of the problem, this research is expected to provide the following benefits: 1) Can provide a foundation for geothermal development companies that have permits. 2) The results of this research are also expected to strengthen and enrich the treasures of theories that have been put forward about legal protection for geothermal development companies that have permits. 3) This research is expected to be useful for the government in providing legal protection to geothermal development companies that have permits.

## **METHODS**

This research is a mixed research method, namely normative juridical and empirical juridical. According to Soerjono Soekanto and Sri Mamudji, normative legal research is legal research carried out by examining library materials or secondary data. Sutandyo Wigyusubroto gave the term "normative legal research with the term doctrinal research, namely research on laws that are conceptualized and developed based on the doctrine adopted by the conceptual or the developer", empiricism here to analyze fair legal protection for geothermal development companies that already have business licenses.

The type of research used in this study is qualitative research, which is research that can be interpreted as research that does not carry out calculations. The purpose of this qualitative research is to gain understanding, develop theories and describe complexly (Amirudin and Zainal Asikin 2006). While the approach used is based on the main legal material by reviewing laws and regulations. The legislative approach is carried out by reviewing all laws and regulations related to the issue of fair legal protection analysis for geothermal development companies that already have business licenses.

The research technique used in this study is a normative method, and there will be five methods used in this study: a) statutory approach. b) conceptual approach. 3) philosophical approach. 4) comparison. 5) Casuistic approach.

The analysis is carried out using a philosophical perspective. Law Number 21 of 2014 on Geothermal as will be seen in the next stage taking a legal approach conceptual methods will be used to develop a deeper operational understanding of various trademark definitions and the Indonesian legal framework, which will then be used for the analysis process using a comparative and case-based approach (Peter Mahmud Marzuki). Meanwhile, the empirical approach is to sequence the empirical cycle through stages: 1) Observation (behavior observation). 2) Action. 3) Research.

Observations are more specific to the observations that accompany the Action and are therefore done more systematically. In addition, to determine the elements of conceptual map development of sociological legal research, the author applies empiricism, determination of historical legal schools, correspondence theory, knowledge a posterior, synthesis, induction, field research,

and primary and quantitative data which will be described below. This study will present an analysis using a comparison strategy as an accentuation of normative research methods.

This research took the location of research at the Directorate General of New, Renewable Energy and Energy Conservation and Development Companies and Chairman of the Indonesian Geothermal Association (API). The time of the research that the author will do is March-April 2023. Judging from where the data comes from, there are two kinds of data: primary data and secondary data. Primary data is information collected directly from the Directorate General of New, Renewable Energy and Energy Conservation and Development Companies and the Chairman of the Indonesian Geothermal Association (API). Secondary data can be written, tabled, or displayed in the form of laws and regulations, expert writing findings, measurement results, and so on.

Data collection techniques are carried out by carrying out research in the field taking directly at the Directorate General of New, Renewable Energy and Energy Conservation and Geothermal Development Companies which are used as primary data. The data taken is data for February-March 2021. While secondary data were obtained by interviews with the Directorate General of New, Renewable Energy and Energy Conservation and Geothermal Development Companies to be analyzed for equitable legal protection of geothermal development companies that already have business licenses, legal experts, and legal practitioners who have competence related to research.

Research is also conducted by interviews with parties related to the problem to be researched. An interview is a meeting of two people to exchange information and ideas through questions and answers, so that meaning can be constructed in a particular topic or can be called a form of verbal communication. So a kind of conversation aimed at obtaining information.

Furthermore, to determine informants in this study, purposive sampling was used, which is a method of selecting people based on certain criteria according to the emphasis of the research and then rolling them out to others until saturation is achieved. The purposive approach frees researchers from formal attachments when selecting research samples, allowing them to select samples based on research emphasis and objectives.

This is done because researchers are looking for new informants who can be used as reliable and appropriate sources of information. After all, the small number of data sources has not been able to provide satisfactory information. That is, the selected informant is assumed to have and master the knowledge needed following the emphasis and objectives of the study, and must be willing to disclose it to the researcher impartially and realistically.

## **RESULTS AND DISCUSSION**

### **Geothermal Business Licensing Arrangements Have Provided Fair Legal Protection for Geothermal Development Companies**

Law is a social norm that is inseparable from the values that exist in society and the law itself is a concretization of values that exist in a society and at one time (Soerjono, Soekanto, 1999). The government on behalf of the state can carry out control, regulation, and management of geothermal following the mandate of the Constitution of the Republic of Indonesia Year 1945 Article 33 which states, "the earth, water, and natural resources contained therein are controlled by the state and used for the greatest prosperity of the people". For "the greatest prosperity of the people" is the goal of natural wealth management by the state and the right of control is in the state (Andrian, Sutedi, 2012).

Geothermal development in Indonesia is divided into three generations. In Generation I, geothermal is included in the mining sector with Pertamina as the mining power holder on behalf of the government following Presidential Decree No. 22 of 1981 and geothermal investors must enter

into a joint operating contract (JOC) with Pertamina to be able to manage the Geothermal Working Area (WKP).

Then after the financial crisis in 1997 and 1998, 2000 Presidential Decree No. 76 of 2000 was issued so that Presidential Decree No. 22 of 1981 did not apply and Pertamina was no longer the holder of geothermal mining power and Pertamina's position became equal to other developers. Due to this financial crisis, the government unilaterally cut off contact with many investors and came up with a new regulation where the risk of geothermal development was entirely given by developers while the government only guaranteed from the purchase side by PLN.

Then in Generation II, Law No. 27 of 2003 was issued where Independent Power Producer (IPP) owns WKP using its company name without the need for JOC with Pertamina. In Generation II, geothermal includes mining activities so geothermal activities are prohibited from being carried out in Protected Forest Areas, National Parks etc. The geothermal potential is mostly in Forestry Areas, so the government issued Law No. 21 of 2014 which is no longer included in mining activities so that development activities can be carried out in National Parks, Conservation Forests, allowing geothermal development in protected forest boundaries, local governments get an additional production bonus of 0.5% of gross production which previously only royalty of 2.5%.

In energy policy, there are at least three aspects that must be considered, first, namely the continuity of national energy supply because energy is a strategic commodity. The second aspect is the utilization aspect and the third aspect is the distribution of resources and their types. These three aspects must also be seen in the framework of a developing and very decisive strategic environment, namely environmental aspects, democratization/decentralization, and free markets (Syariful Azmi).

The use of geothermal as a power plant according to Regina Tetty Mary has a positive impact, namely: (1) potential income for local governments for excess production, (2) environmental sustainability in geothermal locations is an absolute requirement in geothermal development, (3) for entrepreneurs who develop geothermal in their work area have the freedom to determine electricity tariffs according to their authority, (4) and the potential of geothermal resources to support national energy security (Regina Tetty Mary, 2017).

Indonesia's need for energy will continue to increase along with the increase in economic growth and population every year while the reserves of energy sources are decreasing because the energy needs are not balanced by adequate energy supply. Meanwhile, the availability of fossil energy sources is currently decreasing so that new alternative energy is needed that can be utilized to meet the need for energy. Geothermal energy is renewable energy that can be used as alternative energy to meet energy needs in Indonesia and reduce dependence on fossil energy.

Especially for geothermal energy, Indonesia stores potential reserves of 14,626.5 MW with utilization only reaching 4.9%. Meanwhile, based on the National Energy General Plan (RUEN), the government targets 7.6 GW of geothermal use in 2025 then increased to 17.6 in 2050 in the form of geothermal power plants (PLTP) (Pradipta Ahluriza, 2021). With a large and renewable amount, this indirect utilization promises great economic income for the center and regions.

However, in addition to economic potential, the use of geothermal for PLTP raises resistance from residents due to negative impacts on the environment if the authority owner neglects to ensure the implementation of environmental conservation since the permit. In addition, regulations allowing geothermal exploration in nature conservation forests and protected forests make licensing authority a fulcrum not only for economic interests but also for environmental aspects.

Based on Article 33 above, especially paragraphs (2) and (3) affirm that the business of utilizing geothermal as natural wealth controlled by the state must be used for the greatest prosperity of the



people. Geothermal development efforts are not an easy business to do. Geothermal energy development is a comprehensive activity integrated with other sectors.

Geothermal exploitation requires an Environmental Permit regulated in Law 32 of 2009 concerning Environmental Protection and Management changed to an Environmental Approval issued by the environmental agency at the local government level in Law No. 11 of 2020. Before obtaining an Environmental Permit, geothermal developers/investors whose business locations are located in Forestry Areas as auction winners must have a Forest Area Use Permit (PPKH).

Geothermal exploitation requires water as a support in its exploitation and requires a Water Resources Exploitation Permit (IPSDA) in its business where the permit is issued by the Ministry of Public Works and Public Housing (PUPR). However, geothermal exploitation regulated in Law No. 21 of 2014 is not following the provisions of Law No. 5 of 1990 concerning the Conservation of Biological Natural Resources and their Ecosystems, where water utilization for water utilization activities and electrical energy is not included in activities that are allowed to be carried out in Nature Reserve Areas (KSA) and Nature Conservation Areas (KPA).

During Generation, I to Generation III geothermal development, geothermal concession permits, especially in Forestry Areas, continue to be improved and simplified to integrate permits in One-Stop Integrated Services (PTSP) and OSS Systems. However, licensing is still an obstacle in geothermal development.

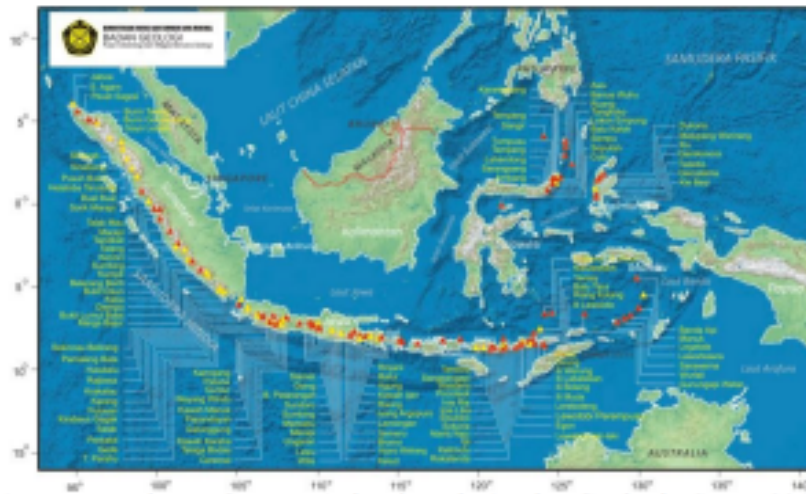
In substance, the current geothermal exploitation licensing policy is quite good, there are only overlapping policies between geothermal policy and water resources and a ban on the development of PLTP in the Tropical Rainforest Heritage of Sumatra (THRS) Area. To be able to overcome these two licensing policy constraints, it is necessary to synchronize policies both through government regulations and Ministerial Regulations.

### **The Implementation of the Geothermal Exploitation Policy has Provided Fair Legal Certainty in Protecting Geothermal Development Companies**

Geothermal is an alternative energy source that is being looked at by the government as a substitute for fossil energy which has fewer and fewer reserves. The potential of Indonesia's geothermal resources is very large, considering that Indonesia is a country that has many volcanoes. The volcano is spread from the tip of Sumatra Island, Java Island, Bali Island, Lombok Island, and Sulawesi Island.

Indonesia has enormous geothermal potential because it is one of the countries passed by the Ring of Fire. About 40% or 29,000 MW of the world's total geothermal is in Indonesia because Indonesia is a country that has high volcanic potential. Figure 1 shows the distribution of volcanoes in Indonesia. However, with this enormous potential, geothermal utilization in Indonesia is still not optimal.

Even of the 299 areas that have geothermal potential, only 2.68% are used as PLTP, while 45.15% are still in the preliminary investigation stage, 13.04% are in the preliminary investigation stage, 36.79% are in the detailed investigation stage, and as many as 2.34% are in the exploration stage or ready to be developed.



**Figure 1** Map of Indonesian Volcano Distribution (Geological Agency of ESDM, 2015)

The southern part of East Java is a volcanic route or ring of fire with a continuous series of active volcanoes forming a geothermal system.

Thermal energy sources are almost evenly distributed in Indonesia, based on existing records there are more than 300 geothermal or geothermal source points spread from Sabang to Merauke. Geothermal energy can be used to replace non-renewable energy sources such as fossil fuels for power generation and transportation.

It was recorded that in 2018 Indonesia's Total Primary Energy Production (TPEP) both oil, gas, coal, and renewable energy reached 411.6 MTOE. While as much as 64% of the total is used for coal exports and also liquefied natural gas (LNG). The Indonesian government also imports crude oil used in the manufacture of 43.2 MTOE of fuel as well as small amounts of high-calorie coal for industrial use. In Indonesia alone, the highest recorded energy use is used in the transportation sector with a magnitude of 40%, then the industrial sector reaches 36%, in third position is households with a figure of 16%, and commercial activities and other sectors by 8%.

The draft that has been made by the Government of Indonesia regarding the location and amount of renewable energy reaches 23% by 2025 and will increase to 31% by 2050. Meanwhile, the mix or amount of non-renewable energy such as petroleum will decrease to half of the current amount, which is as much as 40% in 2050. This data is a fact that needs to be noted that the potential of renewable energy in Indonesia is so large.

Indonesia as a country with a very large population of approximately 280 million people needs alternative energy sources as a substitute for fossil energy to overcome the energy crisis in the future. The tectonic conditions of Indonesia, which is a country rich in geothermal resources, can be used as an alternative energy source, especially for power plants, and as a supporting means for the development of the industrial, agricultural, fisheries, and other regional potentials. In the future, this potential can be utilized as an alternative energy source that can meet the needs of the community (Setianingsih,2011).

Based on data from the Ministry of Finance, the temporary realization of government revenue from natural resources in 2018 grew 62.96% to Rp 161.1 trillion from the previous year. The value consists of Rp 143.3 trillion (80%) comes from the oil and gas sector and the rest is non-oil and gas. This year, the government targets natural resource revenues of Rp190.75 trillion, up 12.37% from the 2018 outlook or 5.33% from the provisional realization in 2018.

The natural resources revenue consists of oil and gas sector revenues of IDR 159.79 trillion (83%) and the rest from non-oil and gas. Oil prices, which had risen to above US \$ 80 / barrel, and coal up to US \$ 100 / ton, triggered the increase in natural resource revenues last year (Ministry of

Finance of the Republic of Indonesia, 2019). Geothermal Revenue consists of government share deposit revenue, fixed fees, and geothermal mining production dues/royalties.

Article 33 paragraph (3) of the Constitution of the Republic of Indonesia Year 1945 states that: "Earth and water and the natural resources contained therein are controlled by the state and used for the greatest prosperity of the people." Controlled by the State means the Right of State Control over natural wealth assets. The state is sovereign over the wealth of natural resources. The legal ownership rights of natural resources are the people of Indonesia. These two meanings constitute unity. The right to control the state is an instrument while "the greatest prosperity of the people" is the ultimate goal of natural wealth management (Adrian Sutedi2012).

This State Tenure Rights contains the authority to regulate, manage, and supervise the management or exploitation of excavated materials, and contains the obligation to use for the greatest prosperity of the people. Control by the state is held by the government. Thus, the role of the government in the mining sector related to its tenure rights is very important to manage the wealth of natural resources so that they can be enjoyed by many people to create a just and prosperous society.

From the affordability aspect, geothermal business permits, especially old environmental permits, result in developers having to bear revenue delays so that the price of electricity from geothermal becomes higher. From the aspect of acceptability or community acceptance, the ease of geothermal exploitation licensing is considered by some environmentally concerned communities to still ignore environmental safety so many rejections of PLTP development and several cases of environmental damage in the development of PLTP indicate weak supervision of the implementation of geothermal exploitation permits to further strengthen the community's argument that the development of PLTP damages the environment. This can be seen from the rejections that occur where the community makes cases of environmental damage that have occurred in the development of PLTP as the basis for their rejection.

Geothermal permits have a maximum period of 37 (thirty-seven) years and can be extended for a maximum of 20 (twenty) years each time. The permit is granted to carry out exploration, exploitation, and utilization. Carrying out exploration activities, geothermal permit holders are required to have environmental permits. Exploration has a maximum period of 5 (five) years since the Geothermal Permit is issued and can be extended 2 (two) times, each for 1 (one) year.

This time is included to carry out feasibility study activities. A feasibility study is a study to obtain detailed information on all aspects related to determining the technical, economic, and environmental feasibility of a proposed Geothermal utilization business plan and/or activity.

Geothermal exploitation and utilization have a maximum period of 30 (thirty) years since the feasibility study is approved by the minister. Before exploitation and utilization, Geothermal Permit holders are required to have an environmental permit included in the Feasibility Study; and submit the results of the Feasibility Study to the Minister for approval. Geothermal permits may expire for the following reasons: they expire; Returned; Revoked; or canceled.

In its implementation, the implementation of geothermal licensing policies is still not effective in facilitating geothermal business licensing. This is due to the lack of coordination between the central and regional governments, the licensing system through PTSP and OSS which is not optimal because there are still integrated permits in it, and weak supervision of the licensing process to the lack of community socialization so that currently there is a lot of community rejection of the development of PLTP.

However, with the existence of the Job Creation Law, it cannot be felt in geothermal development because the one-stop licensing system is still in the process of improvement and development. The purpose of the issuance of the Job Creation Law is licensing reform through the



Risk-Based Online Single Submission System (OSSRBA) which can integrate all licenses in Indonesia to facilitate the business licensing process in various sectors.

Current licensing must implement a Good Environmental Governance (GEG) system, where geothermal business licensing must pay attention to the role and opinion of the community. If the community does not have a balanced knowledge between the benefits and negative impacts of geothermal development, then community rejection becomes the biggest obstacle in geothermal business licensing. This is because the development of PLTP has a major impact on the community to support the community's economy.

In terms of policy implementation theory, according to Solichin, Abdul Wahab suggests that the term policy itself still occurs in cross-opinions and is a place for expert debate. Solichin Abdul Wahab provides the following guidelines: a) Policy should be distinguished from decision. b ) Policy is not necessarily distinguishable from administration. c) Policy includes behavior and expectations.

The scope of public policy studies is very broad because it covers various fields and sectors such as economics, politics, society, culture, law, and so on. In addition, judging the hierarchy of public policies can be national, regional, and local such as laws, government regulations, presidential regulations, ministerial regulations, regional/provincial government regulations, governor decrees, district/city regulations, and regent/mayor decrees.

Furthermore, public policy is a series of actions carried out or not carried out by the government that are oriented towards certain goals to solve public problems or in the public interest. Policies to do something are usually contained in provisions or laws and regulations made by the government so that they have a binding and coercive nature.

Regarding the implementation of policies in efforts to protect the law for geothermal developers, the author analyzes the unrealized ease of geothermal exploitation permits has not been able to improve Indonesia's National Energy Security in terms of access and availability. Therefore, the government needs to immediately improve the licensing system that can integrate all geothermal concession permits in Indonesia to break the bureaucratic chain that makes it difficult for developers.

### **Direction of Fair Regulation to Provide Legal Protection for Geothermal Development Companies**

The utilization of geothermal energy as a power plant goes through several stages, namely exploration, development of plant infrastructure, and operationalization of plants. After all the characteristics. Geothermal reservoirs are identified at the exploration stage, followed by the development of plant infrastructure such as well development, pipeline construction, generating houses, access roads, and others. For its utilization, it is necessary to carry out mining activities in the form of exploration and exploitation to transfer the thermal energy to the surface in the form of hot steam, hot water, or a mixture of steam and water and other elements contained in geothermal.

The implementation of geothermal energy development is in line with the principle of advancing the use of New Renewable Energy (EBT) in the Paris Agreement and Sustainable Development Goals (SDGs) number 7 (seven), namely the creation of affordable, reliable, modern, and sustainable energy access. This is then concretized in Article 3 paragraph 3 letter a of Government Regulation Number 79 of 2014 concerning National Energy Policy which indicates the existence of supporting policies, one of which is energy conservation, energy resource conservation, and energy diversification, until 2050.

Furthermore, in Article 9 letter f, in 2025 the role of NRE is at least 23 percent and in 2050 at least 30 percent, in 2025 the role of petroleum is less than 25 percent and in 2050 less than 20

percent, in 2025 the role of coal is at least 30 percent and in 2050 at least 25 percent and in 2025 natural gas is at least 22 percent and in 2050 at least 24 percent. The government also accelerates the development of NRE by increasing the capacity of existing NRE power generation units and ongoing new construction of NRE in the electricity supply business plan, striving to create an NRE market, increasing energy accessibility to the community with funding from the State Budget (APBN) and access to competitive funding, supporting policies in improving the governance of accelerating New Renewable Energy and Energy Conservation (EBTKE).

Indirect use of geothermal using Geothermal Power Plants (PLTP) that can be operated for up to 95 percent of the installed capacity for more than 30 years (Finahari, 2020). Geothermal energy development in Indonesia is still experiencing problems such as the uncertainty of electricity selling prices and low prices by PT Perusahaan Listrik Negara (PLN) which is only US \$ 0.97 per kWh with a steam selling price of 3.7 cents US \$ kWh to 3.8 cents US \$ / kWh which when compared with the selling price of electricity is 4.20 cents US \$ / kWh to 4.44 cents US \$ / kWh with an increase of 1.5 percent per year even though investors will incur investment costs that Large from exploration to utilization stage (Dwipa, 2018).

With less competitive prices with uncertain internal rate returns, because entrepreneurs have to deal with high costs and high risks, it has an impact on the lack of development of the investment climate and geothermal development. Other obstacles such as bureaucratic problems such as complicated licensing because they involve multi-sector ministries and the existence of different central and regional authorities trigger overlapping law enforcement.

The birth of Law Number 21 of 2014 concerning Geothermal Thermal Energy, replacing Law Number 27 of 2003 concerning Geothermal Thermal Energy, further confirms the country's political will to geothermal development as an alternative source of primary energy nationally. On a practical level, the mandate of this Law has a strong tangent point with the national electricity development program. Through this new legal framework, geothermal development positions an increasingly strong bargaining power to complete the crash program for the development of 10,000 MW Phase I and II power plants, as well as the 35,000 MW program.

Several crucial issues that have been obstacles in geothermal development that have not been regulated in Law No. 27 of 2003, for example, span cross-sectorally and multidimensionally from licensing issues, especially in forest areas, incentives both fiscal and non-fiscal for developers, direct utilization, the role of local governments, issues of determining steam selling prices, exploration funding to institutional issues. No less important, considering that more than 80% of geothermal reserve locations are included in forest areas, the problem of geothermal development in forest areas, especially in conservation forests, for example, is also one of the unresolved issues.

The issue of pollution and/or environmental damage is not a single issue in the NRE energy transition, especially geothermal in Indonesia. Various other problems such as regulatory barriers, policies, and even bureaucracy become stumbling blocks to geothermal development. In geothermal management for indirect use, it corresponds to other government organs such as the Ministry of Environment and Forestry (LHK) such as environmental approvals, Environmental Service Utilization Permits in geothermal exploitation in protected forest areas, and others to create a coordinating relationship between the two organs. The same is true in geothermal management for indirect use that requires environmental approval.

Based on the theory of legal protection legal protection is an effort to protect human rights violated by others to harm themselves and the protection given to the community is so that the community can enjoy the rights that the law has given. Legal protection is pursued through efforts to make and include steps through legislation that has a purpose, and scope is planned through

strategy and policy. All of these things can be found in every piece of legislation that is mainly carried out with the same purpose of legal protection.

Based on the above understanding, it can be concluded that legal protection is all forms of efforts to protect and protect humans against their dignity and dignity, as well as recognition of human rights in the field of law. The principle of legal protection in Indonesia is based on state law, namely Pancasila and the Law. Both sources of law prioritize recognition and respect for human dignity and dignity, especially among Indonesian citizens.

Legal protection in this case is the legal construction of regulations for geothermal development companies in developing their business to create fair regulations. Justice in question is as mandated by Pancasila. Pancasila theory of justice is a legal theory that is based on the values of Pancasila as the basis of ontology, epistemology, and even axiology, Pancasila can provide values of justice as legal reform in Indonesia (Mochtar Kusumaatmadja).

The theory of justice Pancasila, if drawn a common thread at a point of convergence, is a synthesis of development law theory, progressive legal theory, and integrative legal theory, all based on laws that live in society and based on the primordial values of the Indonesian nation, namely the values of Pancasila as a typical of social life and at the same time as a *volks geist* or soul of a nation, following the opinion of M. Agus Santoso in his book *Moral Law and Justice A Philosophical Studies* says that justice must be determined based on the public order of the local community.

A different opinion was expressed by Prijandaru Effendi that the direction of fair regulation to provide legal protection for geothermal development companies is seen from legal certainty, one of which is regarding the sale and purchase agreement with PLN with a time limit of 30 years, so long as the government guarantees and PLN can buy at the agreed price then in terms of physical law that is expected to be protected utilizing local governments have been more active to help development in the area including equalizing its SKPD.

And the government can provide legal protection by eliminating the view that development in the region will only benefit companies, even though later there will be resources that will be shared with the region.

With the Job Creation Law, the government made changes to the nomenclature of geothermal business licensing. This change is an effort to synchronize permissions which will later be integrated with one system, namely the Risk-Based Online Single Submission System (OSS-RBA). There has been substantially no change in geothermal licensing policy in the Job Creation Law because according to the Ministry of Energy and Mineral Resources, the implementation of Law No. 21 of 2014 concerning Geothermal is still ongoing. According to the developer, Law No. 21 of 2014 has very well accommodated all policies in geothermal exploitation. Therefore, currently, the influence of the Job Creation Law on geothermal development has not been felt because the licensing integration process is still ongoing.

In general, the current geothermal control licensing policy is good and it is clear that there are only overlapping licensing policies on water resources concession permits, so synchronization of Geothermal Permits (IPB) with Water Resources Concession Permits is needed. In its implementation, the implementation of geothermal licensing policy is still not effective to facilitate geothermal exploitation licensing.

This is due to the lack of coordination between the central and regional governments, the licensing system through PTSP and OSS which is not optimal because there are still integrated permits in it, and weak supervision of the licensing process to the lack of community socialization so that currently there is a lot of community rejection of the development of PLTP. The existence of the Job Creation Law cannot be felt in geothermal development because the one-stop licensing system is still in the process of improvement and development.

The purpose of the issuance of the Job Creation Law is licensing reform through the Risk-Based Online Single Submission System (OSSRBA) which can integrate all licenses in Indonesia to facilitate the business licensing process in various sectors.

Moreover, geothermal development in Indonesia is different from the beginning of geothermal development where there is no community rejection of geothermal development. Along with the times, many people in the world today are very concerned about environmental sustainability in every business.

Current licensing must implement a Good Environmental Governance (GEG) system, where geothermal business licensing must pay attention to the role and opinion of the community. If the community does not have a balanced knowledge between the benefits and negative impacts of geothermal development, then community rejection becomes the biggest obstacle in geothermal business licensing.

The development of geothermal fiscal incentive policy in Indonesia cannot be separated from the development of geothermal itself and investment conditions, where since the issuance of Law No. 27/2003 only a few new investments from the public and private sectors have emerged. So to increase the use of geothermal energy and attract investors, the government makes various efforts including: 1) Provide various facilities and incentives; 2) Improvement of public facilities and infrastructure; 3) Coordinate with relevant stakeholders; 4) Simplify the licensing process.

According to the Constitutional Court, the increasing need for energy should also be balanced with the provision of adequate energy. Based on the previous ruling, the Constitutional Court placed electricity, as well as geothermal, which is a new renewable energy source, as a sub-matter of elective concurrent government, whose authority is shared between the central and provincial governments, not contrary to the 1945 Constitution, insofar as its determination is based on the principle of accountability, efisiensi, eksternalitas, dan kepentingan strategies Nasional. Hal ini juga affirmed in other Court Decisions relating to the division of central and regional authority related to education affairs in Decision Number 30/PUU-XIV/2016, and Decision Number 31/PUU-XIV/2016.

The Constitutional Court later affirmed that this was the policy of the framer of the law. The framer of the law can regulate the portion of the authority of the central and regional governments themselves, this is as stipulated in Article 18 paragraph (1) of the 1945 Constitution that Indonesia is divided into provincial areas, and the provincial areas are divided into regencies and cities where each province, regency, and city has a regional government, which is regulated by law.

Thus, according to the Constitutional Court, although Article 18 paragraph (2) of the 1945 Constitution has affirmed that provincial, regency, and city local governments regulate and manage their government affairs according to the principle of autonomy and assistance duties, this principle of regional autonomy is limited by Article 18 paragraph (5) of the 1945 Constitution, namely regional governments exercise the widest autonomy, except for government affairs which by law are determined to be the affairs of the Central Government.

As explained in previous Court decisions, Article 13 of Law 23/2014 has affirmed the criteria for affairs under the authority of the central government, namely: a) government affairs located across provincial regions or countries; b) government affairs whose use is across provincial regions or countries; c) government affairs whose benefits or negative impacts cross-regional, provincial or cross-country; d) government affairs where the use of resources is more efficient if carried out by the central government.

In this regard, according to the Constitutional Court, geothermal meets these criteria so it is appropriate to be the authority of the Central Government. Moreover, when considering the potential conflicts that arise if it is handed over to the regions, the government is working hard to ensure

national energy security which in the future depends heavily on the ability to utilize the existence of new renewable energy, including geothermal.

Referring to the legitimacy of regulations before environmental approval, namely Government Regulation Number 27 of 2012 concerning Environmental Permits (PP Izin Lingkungan) mandates the construction of geothermal power plants as one of the national strategic businesses that must obtain Environmental Permits and the activities concerned must have Environmental Management Efforts – Environmental Monitoring Efforts (UKL-UPL) and/or Environmental Impact Analysis (Amdal) which includes: Geothermal exploration is mandatory UKL-UPL if it is located inside or outside the conservation area and exploitation activities are mandatory Amdal is located inside or outside the conservation area.

Even with the enactment of Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management (PP No 22 of 2021) which at the same time eliminates geothermal exploitation that requires Environmental Permits, this provision revokes the provisions of the Environmental Permit PP. PP No. 22 of 2021 has a direction of regulatory objectives in the geothermal sector for the same indirect use.

In the sense of mandating geothermal exploration that is not followed by supporting businesses and/or activities whose scale/magnitude is mandatory for Amdal, the business plan and/or activity can be excluded from fulfilling the Amdal. Meanwhile, at the stage of exploration of renewable natural resources, it is mandatory to have an Amdal as contained in Article 5 paragraph (1). Renewable energy is energy derived from renewable energy sources. This means that the geothermal exploration stage requires UKL-UPL while at the exploration stage using Amdal.

According to the authors, this distinction will have an impact on uncertainty because the determination of mandatory or non-AMDAL depends on the type of activity, not on the assessment of protection instruments that depend on the classification of activities based on the potential risks of each type of activity. The results of the data obtained from the exploration phase will be submitted to the government within three years and once a year there is an online reporting mechanism to the Minister.

Environmental approval must be owned by a business entity as a geothermal operator before drilling geothermal exploration wells using UKL UPL and Environmental approval. Meanwhile, at the exploitation stage, environmental permits must be owned by business entities before exploiting and utilizing geothermal.

## **CONCLUSION**

Based on the results of the research and discussion above, the author concludes, namely: Geothermal business licensing arrangements have provided fair legal protection for geothermal development companies. Regarding licensing, the legal basis or regulations related to licensing in the geothermal sector as stated in the interview results that the regulations consist of Law Number 21 of 2014 concerning Geothermal and Law Number 11 of 2020 concerning Job Creation, then there are PP No. 7 of 2017, PP No. 28 of 2016, PP No. 5 of 2021, and PP No. 26 of 2022.

The implementation of the geothermal exploitation policy has provided fair legal certainty in protecting geothermal development companies, this is supported by the results of interviews with resource persons that regulatory legal certainty is complete, so with the regulation, it can provide fair legal certainty. However, with the existence of the Job Creation Law, it cannot be felt in geothermal development because the one-stop licensing system is still in the process of improvement and development.

The direction of fair regulation to provide legal protection for geothermal development companies that in fact if legally related, namely with the existence of complete regulations, is legally



protected for IPB holders, both from the time of obtaining IPB to the end and there the rights and obligations of business already exist, therefore between the parties can carry out justice between rights and obligations. In addition, judging from the legal certainty, one of which is regarding the sale and purchase agreement in terms of physical law, which is expected, namely the protection utilizing local governments that have been more active to help development in their regions, including equalizing their SKPD.

And the government can provide legal protection by eliminating the view that development in the region will only benefit companies, even though later there will be resources that will be shared with the area. Then related regulations regarding geothermal laws are also implemented properly so that development can run smoothly.

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