

## **Legal Review of Renewable Energy Resources and Statutory Government Support**

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### **ABSTRACT**

*The Indonesian government pays full attention to the development of new and renewable energy on a national and global scale. Energy capacity to meet future needs is inseparable from the increasingly expansive Indonesian economy. The Central Government continues to support strengthening the role of Regional Governments in implementing energy sector programs, carried out to ensure the shape of the role of Regional Governments to support accelerated achievement of national energy transition policy targets. Through normative juridical research methods, the study will see how the legal concepts in the development of renewable energy are in order to support national programs in the field of national energy security. So getting the type of research that supports the discussion with library research techniques or literature review which includes systematic analysis, data analysis in the form of writings and scientific works that are appropriate and related to renewable energy issues. From the concept of energy law, the Indonesian nation as a new energy country with abundant potential, Government support for energy development is not only carried out through the APBN through ministry/institutional expenditures, transfers from the central government to regional governments and regulatory schemes, but also through fiscal incentive policies. Fiscal policy in the form of providing tax allowance facilities, tax holiday on import facilities in the form of exemption from import taxes and import duties, etc. Based on Article 33 of the 1945 Constitution of the Republic of Indonesia, the entire Indonesian nation has power over it and must be used for the greatest prosperity of the people. Considering the important role of energy in improving economic activities and national security, energy management, including its supply, use and utilization, must be implemented in a fair, sustainable, optimal and integrated manner.*

**Keywords:** Law, Economics, Energy, Government,

## **A. INTRODUCTION**

The increase in the rate of energy consumption is in line with the rate of population growth and economic growth in a country. In Indonesia, energy consumption is still dominated by fossil energy (petroleum, natural gas, and coal) while new and renewable energy (EBT) is still alternative. Dependence on fossil energy poses at least three serious threats, namely: 1) The depletion of existing petroleum reserves (assuming no new oil wells are found); 2) Price increase/instability due to higher demand rate than oil production; and 3) Greenhouse gas pollution due to burning fossil fuels<sup>1</sup>.

With the perspective of energy as development capital, renewable energy has an important role in driving a green, sustainable, and low-carbon economic system. Indonesia has a high potential for clean and renewable energy. The potential of these resources can be utilized to create equitable and clean energy access. Indonesia has renewable energy potentials that are spread throughout Indonesia, including solar energy sources, water and micro-hydro energy sources, wind energy sources, geothermal energy sources, ocean wave energy sources, and biomass energy sources. However, currently the use of clean and renewable energy in Indonesia has only reached 6% of the national energy mix. By looking at the scattered renewable energy potential, domestic energy supply, especially in areas that do not yet have access to energy, can be fulfilled with local potentials<sup>2</sup>

The Indonesian government pays full attention to the development of new and renewable energy on a national and global scale, so that new and renewable energy is a priority sector in Indonesia's future development. For this reason, it is necessary to increase energy capacity to meet future needs. This is certainly inseparable from the increasingly expansive Indonesian economy. On the other hand, Indonesia also actively participates in efforts to mitigate global emissions in order to anticipate climate change, where the Government has committed to achieving Net Zero Emissions in 2060. New and renewable

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<sup>1</sup> Pemerintah Dorong Peran Daerah Dukung Percepatan Transisi Energi Di Indonesia <https://ebtke.esdm.go.id/> (diakses pada 20 Oktober 2022, pukul 20.25).

<sup>2</sup> Yusuf Saefulhak, Tri Mumpuni, Fabby Tumiwa, Energi Terbarukan: Energi Untuk Kini dan Nanti, Jakarta: Institute for Essential Services Reform, 2017, hlm 2 – 3.

energy must be able to replace carbon energy that has high emissions such as fossil fuels, especially for renewable energy. meet domestic energy needs. The Indonesian government is targeting to achieve the proportion of new and renewable energy of 23 percent of total energy sources in 2025 and 31% in 2050<sup>3</sup>. This target is equivalent to 45.2 GW of NRE power generation in 2025, the rest is contributed by biofuels, biomass, biogas, and coal bed methane. Indonesia's renewable energy potential for electricity reaches 443 GW, including geothermal, water and micro-mini hydro, solar, wind and ocean wave bioenergy. The potential for solar power in Indonesia has the largest portion, more than 207 MW, followed by water and wind<sup>4</sup>. The following is the potential of NRE in Indonesia:

Table 1. Potential of NRE in Indonesia (DEN, 2017)

No.	Jenis Energi	Potensi (MW)	Kapasitas Terpasang (MW)	Pemanfaatan (%)
1	Panas Bumi	29.544	1.438,5	4,9
2	Air	75.091	4.826,7	6,4
3	Mini dan Mikrohidro	19.385	197.4	1
4	Surya	207.898	78.5	0,04
5	Angin	60.647	3,1	0,01
6	Bioenergy	32.654	1.671	5,1
7	Laut	17.989	0,3	0,002

Reference: IESR, 2017

Energy issues are not only the responsibility of the central government, but also the role of local governments (Pemda) to support the low-carbon energy transition. Energy transition planning can be an opportunity to empower local governments and local communities to participate in sustainable electricity business models. One of the local governments' support in supporting sustainable energy is the existence of local regional energy planning as contained in the Regional Energy General Plan (RUED), detailed urban

<sup>3</sup> Energi Baru Terbarukan Prioritas Pembangunan Indonesia Masa Depan, <https://www.menpan.go.id/> (diakses pada 20 Oktober 2022, pukul 20.40).

<sup>4</sup> Op.cit, Yusuf Saefulhak, Tri Mumpuni, Fabby Tumiwa, hlm. 4.

spatial planning (RDTR/ Detailed Spatial Planning) as well as support from other institutions in the region<sup>5</sup>.

The Central Government continues to support strengthening the role of Regional Governments (Pemda) in implementing energy sector programs in the regions. The Regional Government through its authority is expected to provide more optimal support in efforts to achieve national development targets in the energy sector, especially the development of new and renewable energy (EBT) in order to support the acceleration of the transition in Indonesia. Local governments need to do mitigation early on so that they can identify problems that will arise from now on. Continuous efforts need to be made to ensure the shape of the role of the Regional Government to support the acceleration of achieving the national energy transition policy targets.

## **B. RESEARCH METHODS**

This scientific work aims to find out about the legal concepts in the development of renewable energy in order to support national programs in the field of national energy security. The method adopted in this normative legal research emphasizes the approach to legislation. Through normative juridical research methods, the study will see how the legal concepts in the development of renewable energy are in order to support national programs in the field of national energy security. So get the type of research that supports the discussion with library research techniques or literature review which includes systematic analysis, data analysis in the form of writings and scientific works that are appropriate and related to renewable energy issues. In this study, the data collection method that the researcher uses is the documentation method, which is looking for data about things or variables in the form of books, newspapers, journals, and so on.

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<sup>5</sup> Ardyanto Fitriady dkk, *Model Bisnis Untuk Memperkuat Peran Pemerintah Daerah Dalam Pemanfaatan Potensi Energi Terbarukan Di Indonesia* (Yogyakarta: Pusat Studi Energi Universitas Gadjah Mada, 2021).

## **C. RESULTS AND DISCUSSION**

### **1. ANALYSIS IN LEGAL CONCEPTS ON ENERGY LAW**

Energy is a key sector for the development of the Indonesian nation. There are many aspects in terms of state income, to determine the development of civilization progress in Indonesia. The existence of energy is an important and strategic natural resource that is used to control the lives of many people, becomes the authority of the state to regulate its people, and to guarantee the greatest prosperity as regulated in Article 33 of the 1945 Constitution of the Republic of Indonesia.

Energy supply is projected to grow by an average of 5.2% per year in the period 2012 - 2025. Energy novelty in 2012 is dominated by oil (39%), followed by coal (22%), and natural gas (17%). Remembering the reserve Indonesia's fossil energy is limited when compared to world reserves, where oil is only 0.20%, gas is 1.60% and coal is 1.10%, the role of oil and gas is expected to decrease and be replaced by an increase in supply coal and new and renewable energy (EBT) so that it is urgently needed optimizing the utilization of new energy resources<sup>6</sup>. In 2013, fossil energy contributed 94.3% of the total energy demand, while the remaining 5.7% filled with New and Renewable Energy<sup>7</sup>. Indonesia has committed to contribute to reducing global emissions through the adoption of the Paris Agreement in Law (UU) No. 16 of 2016 concerning the Ratification of the Paris Agreement to The United Nations Framework Convention on Climate Change. Climate).

It is hoped that the Indonesian nation as a country with abundant NRE potential, needs to strongly regulate and apply various concepts, especially in the legal umbrella that underlies its implementation in the future in order to be able to make a clean energy transition as a whole. It is explicitly stated in Article 33 of the 1945 Constitution of the Republic of Indonesia, one of which is in terms of sustainable energy security. For this reason, it is necessary to continue to accelerate the development of NRE power plants. Several

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<sup>6</sup> Agus Sugiyono, *Permasalahan dan Kebijakan Energi Saat Ini*, dalam *Prosiding Peluncuran Buku Outlook Energi Indonesia 2014 & Seminar Bersama BPPT dan BKK-PIL*, Jakarta, Tahun 2015

<sup>7</sup> Muhammad AS Hikam: *Ketahanan Energi Indonesia 2015-2025 Tantangan dan Harapan* (Jakarta: CV. Rumah Buku, 2014)

arrangements as a legal basis that can be referred to regarding the acceleration of the utilization of NRE potential are already contained in:

1. Law no. 21/2014 on Geothermal
2. Law no. 30/2009 on Electricity.
3. RI Government Regulation No. 70/2009 on Energy Conservation.
4. Government Regulation Number 79 of 2014 concerning National Energy Policy.
5. Presidential Regulation Number 4 of 2016 concerning Acceleration of Electricity Infrastructure Development as amended by Presidential Regulation Number 14 of 2017 concerning Amendments to Presidential Regulation Number 4 of 2016 concerning Acceleration of Electricity Infrastructure Development;
6. Presidential Regulation Number 61 of 2015 concerning the Collection and Use of Oil Palm Plantation Funds as amended by Presidential Regulation Number 24 of 2016 concerning Amendments to Presidential Regulation Number 61 of 2015 concerning the Collection and Use of Oil Palm Plantation Funds which amended for the second time by Presidential Regulation Number 66 of 2018 concerning the Second Amendment to Presidential Regulation Number 61 of 2015 concerning the Collection and Use of Oil Palm Plantation Funds;
7. Regulation of the Minister of Finance Number 218/PMK.04/2019 of 2019 concerning Exemption of Import Duties and/or Not Collected Taxes in the Context of Imports on the Import of Goods for Geothermal Operations;
8. Regulation of the Minister of Energy and Mineral Resources Number 10 of 2017 concerning the Principles of the Power Purchase Agreement as amended by Regulation of the Minister of Energy and Mineral Resources Number 49 of 2017 concerning Amendments to the Regulation of the Minister of Energy and Mineral Resources Number 10 of 2017 concerning the Principles of the Electricity Sales and Purchase Agreement which was amended for the second time by Regulation of the Minister of Energy and Mineral Resources Number 10 of 2018 concerning the Second Amendment to the Regulation of the Minister of Energy and Mineral Resources Number 10 of 2017 concerning the Principles of the Sale and Purchase Agreement Electric Power;
9. Regulation of the Minister of Energy and Mineral Resources Number 50 of 2017 concerning Utilization of Renewable Energy Sources for the Provision of Electricity as amended by Regulation of the Minister of Energy and Mineral Resources Number 53 of 2018 concerning Amendments to Regulation of the Minister of Energy and Mineral Resources Number 50 of 2017 concerning Utilization of Renewable Energy Sources for the Provision of Electricity, which is amended for the second time by Regulation of the Minister of Energy and Mineral Resources Number 4 of 2020 concerning the Second Amendment to Regulation of

the Minister of Energy and Mineral Resources Number 50 of 2017 concerning Utilization of Renewable Energy Sources for the Provision of Electricity; and

10. Regulation of the Minister of Energy and Mineral Resources Number 49 of 2018 concerning the Use of Rooftop Solar Power Generation Systems by Consumers of PT Perusahaan Listrik Negara (Persero) as amended by Regulation of the Minister of Energy and Mineral Resources Number 13 of 2019 concerning Amendments to the Regulation of the Minister of Energy and Mineral Resources Number 49 of 2018 concerning the Use of Rooftop Solar Power Generation Systems by Consumers of PT Perusahaan Listrik Negara (Persero) as amended for the second time by Regulation of the Minister of Energy and Mineral Resources Number 16 of 2019 concerning the Second Amendment to the Regulation of the Minister of Energy and Resources Mineral Power Number 49 of 2018 concerning the Use of Rooftop Solar Power Generation Systems by Consumers of PT Perusahaan Listrik Negara (Persero).

## **2. REGULATION OF GOVERNMENT SUPPORT ON RENEWABLE ENERGY**

Given the importance of energy resources, the Government needs to develop an energy management plan to meet national energy needs based on long-term energy management policies. Therefore, on August 10, 2007 the government issued Law Number 30 of 2007 concerning Energy (hereinafter referred to as the Energy Law). Energy governance includes supply, use and recycling that must be sustainable. Long-term management of the energy sector requires an integrated plan for the development of energy resources to ensure long-term energy availability. Indonesia is a country with abundant natural resources, including energy resources. Indonesia's role in the energy sector is very large, for example, Indonesia is one of the largest exporters of coal and LNG (liquefied natural gas) in the world. Wealth is actually the capital to become a great nation. However, so far, energy needs in Indonesia are dominated by non-renewable energy (unrenewable energy).

The government has provided support for the development of NRE through the APBN in the form of budget allocations for Ministries/Agencies, transfers to regions and PPP schemes. In addition, in 2010 the Government issued a policy of providing fiscal (taxation) incentives in the form of (i) income tax facilities in the form of tax allowances, tax holidays and exemptions for import PPh article 22; (ii) import facilities in the form of exemption from import VAT and import duty; and (iii) special PBB reduction facilities for the geothermal sector. However, the support and incentives are deemed not able to encourage the acceleration of NRE investment to its full potential. Therefore, it is deemed necessary to prepare a funding support outside the APBN that can support the acceleration of investment



in the NRE sector, one of which is by formulating a funding support scheme as an incentive to accelerate the use of renewable energy, including energy efficiency efforts and increasing the electrification ratio<sup>8</sup>.

Renewable energy investment will generate high returns and create jobs. Countries around the world have agreed to push for renewable energy and other low-carbon technologies to create new jobs and restore economies in an effort to rebuild better after COVID-19. There are several reasons why the stimulus package needs to include renewable energy investment to encourage NRE growth, including:

1. Clean energy generates economic returns several times the initial investment. Besides encouraging renewable energy, this investment will also help mitigate financial and other risks from climate change. Revenue from NRE is guaranteed by long-term fee-based contracts. The sector has offered risk-adjusted returns with lower volatility compared to other income-oriented equities.
2. The volatility of fossil fuel prices is a global opportunity to accelerate the shift to clean energy. The fossil fuel industry is one of the industries most affected by the coronavirus crisis.
3. Ambitious renewable energy and energy efficiency investments could create 63 million new jobs by 2050. Currently, more than 11 million people work in the renewable energy sector globally<sup>9</sup>.

Renewable energy policies can be implemented through:

1. Energy conservation. This step is carried out by encouraging efficient and rational use of energy without reducing the use of required energy. Conservation can be done from the generator side, preceded by an energy audit. Then reduce the consumption of electricity that is consumptive, beauty, and comfort. Energy conservation can also be done by replacing inefficient equipment and managing the time of use of electrical equipment.
2. Energy diversification. This is done through efforts to diversify the supply and utilization of various energy sources in order to optimize energy supply. In the context of diversification, the use of energy is directed from non-renewable energy resources to renewable energy resources.

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<sup>8</sup> Kajian Skema Dana Energi Terbarukan Sebagai Insentif Percepatan Pemanfaatan Energi Terbarukan, <https://fiskal.kemenkeu.go.id/kajian/2019/03/15> (diakses pada 5 November 2022, pukul 17.43).

<sup>9</sup> Mohammad Ahsan, Tantangan dan Peluang Pembangunan Proyek Pembangkit Listrik Energi Baru Terbarukan (EBT) di Indonesia, *JURNAL ILMIAH SUTET*, Vol. 11, No. 2, Desember 2021, hlm. 84 – 85.



3. Energy intensification. Efforts to find new energy sources in order to increase energy reserves to be used to produce electricity<sup>10</sup>.

The strategy for developing renewable energy in Indonesia can be carried out, among others, through:

1. Running a feed in the existing renewable energy tariff for investors and assisted by RE electricity subsidies from the government for consumers until the basic cost of providing RE electricity allows it to be revoked the RE electricity price subsidy.
2. Provide a C emission tax to the manager of fossil energy power plants, as a form of the state's commitment to emission reduction agreements with the world and to the development of environmentally friendly energy in Indonesia.
3. Renewable energy equipment import tax exemption and encourage local renewable energy equipment manufacturers through tax exemptions and direct financial support.
4. The central government and local governments, then their institutions, both the Ministry of Energy and Mineral Resources, the Ministry of Research, and the Ministry of Environment and Forestry or other institutions, cooperate significantly with each other for development in the field of renewable energy without prioritizing sectoral egos<sup>11</sup>.

### **3. PROVISIONS FOR IMPLEMENTING LEGAL DEVELOPMENT IN ENERGY SECURITY**

The importance of energy resources is part of natural wealth which is a gift from God Almighty to all elements of the Indonesian nation, especially the people. The goal of equitable justice and people's welfare lies in energy resources, which are strategic needs and very important for the livelihoods of many people, especially in increasing economic activity, job opportunities, and national security. Therefore, energy resources must be controlled by the State and used for the greatest prosperity of the people as mandated in Article 33 of the 1945 Constitution of the Republic of Indonesia.

The development of national goals will be achieved, in accordance with the mandate contained in the Preamble to the Constitution, and must be measurable to be able to determine the expected level of independence, progress, justice and prosperity. The

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<sup>10</sup> Imam Kholiq, Pemanfaatan Energi Alternatif Sebagai Energi Terbarukan Untuk Mendukung Substitusi BBM, Jurnal IPTEK, Vol.19 No. 2, Desember 2015, hlm. 83 – 84.

<sup>11</sup> Fikry Adzikri, Didik Notosudjono, dan Dede Suhendi, Jurnal Online Mahasiswa (JOM) Bidang Teknik Elektro, Fakultas Teknik - Universitas Pakuan, Vol. 1, No. 1, 2017, hlm. 11 – 12.

importance of being guided by the vision in legal development is directed to support the realization of a solid National Legal System based on Pancasila and the 1945 Constitution of the Republic of Indonesia, which includes the development of legal materials, legal structures, and legal culture, including the development of law in the energy sector<sup>12</sup>. Through the principles of conducting business and energy management that stated in Law number 30 of 2007 concerning Energy, it is expected that direction of business, development, and management of national energy can realize equitable energy development. Energy justice is to provide access to energy equally to all Indonesian people through infrastructure development energy and human life resources sector as well as optimizing the potential of local energy sources at affordable prices affordable and sustainable, this is in accordance with the mandate of the Constitution 1945 Article 33, namely energy must be used for the benefit of the people, nation and state<sup>13</sup>.

The government, through the Ministry of Energy and Mineral Resources (ESDM), intensively discusses and prepares the New Energy and Renewable Energy Bill regulations. This bill is an initiative of the DPR and is included in the priority of the 2022 National Legislation Program. This regulation is expected to become a comprehensive regulation to create a climate for developing new and renewable energy (EBT) that is sustainable and fair so that the benefits can be felt by all people. The New Energy and Renewable Energy Bill was drafted as an urgent need where a comprehensive regulatory framework is needed that can maintain a conducive, fair and sustainable NRE investment ecosystem, so that renewable energy can benefit the entire community.

The strategic aspects of regulation, the Government's focus on the New Energy and Renewable Energy Bill, include:

1. Green economy and energy transition can be done through NRE development and energy conservation;
2. Development of energy sources with low carbon emissions and sustainable;

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<sup>12</sup> Badan Pembinaan Hukum Nasional, Analisis dan Evaluasi Hukum Dalam Rangka Kedaulatan Energi, Laporan Akhir Tim Pokja, Jakarta, 2016.

<sup>13</sup> Kementerian Energi dan Sumber Daya Mineral, Lomba Foto Energi Berkeadilan, <https://www.esdm.go.id/id/page/lomba-foto-energi-berkeadilan-2018> (diakses pada 04 November 2022, pukul 08.37)

3. Integrated management of nuclear energy and development of nuclear power plants that apply proven technology;
4. The mechanism for determining the area for EBT concessions by the Government through business licensing;
5. Strengthening research and innovation of NRE technology for optimizing the use of NRE;
6. The economic price of NRE which takes into account the capacity and location of development;
7. Support from the Central Government and Regional Governments in accelerating the development of NRE;
8. NRE development by prioritizing domestic products and potentials;
9. Management of NRE funds by the Government;
10. Strengthening coordination and synergy between the Central Government and Regional Governments in the implementation of guidance and supervision;
11. Opportunities to utilize PLN's transmission/distribution network for green industry needs; as well as
12. Community participation in protecting, protecting and preserving the area in the use of EBT activities<sup>14</sup>.

Energy is a resource that can be used to perform various process activities including fuel, electricity, mechanical energy and heat. Energy always comes from energy sources. Energy sources are anything that can produce energy either directly or through a conversion or conversion process. Energy Source is any part of natural resources, including oil and natural gas, coal, water, geothermal, peat, biomass, etc., which can be used directly or indirectly as energy. Based on Article 33 of the 1945 Constitution of the Republic of Indonesia, the entire Indonesian nation has power over it and must be used for the greatest prosperity of the people. Considering the important role of energy in improving economic activities and national security, energy management, including its supply, use and utilization, must be implemented in a fair, sustainable, optimal and integrated manner.

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<sup>14</sup> RUU EBT, Wujud Penguatan Regulasi Pengembangan Energi Baru Terbarukan Tanah Air, <https://ebtke.esdm.go.id/post/2022/11/04/> (diakses pada 5 November 2022, pukul 17.54).

## **CONCLUSION**

Energy consumption in Indonesia is still dominated by fossil energy (petroleum, natural gas, and coal) while new and renewable energy (EBT) is still alternative. The Indonesian government is targeting to achieve the proportion of new and renewable energy of 23 percent of total energy sources in 2025 and 31% in 2050. This target is equivalent to 45.2 GW of NRE power generation in 2025, the rest is contributed by biofuels, biomass, biogas, and coal bed methane. Indonesia's renewable energy potential for electricity reaches 443 GW, including geothermal, water and micro-mini hydro, solar, wind and ocean wave bioenergy. The potential for solar power in Indonesia has the largest portion, more than 207 MW, followed by water and wind.

From the concept of energy law, the Indonesian nation as a country with abundant NRE potential, is expected to need to strongly regulate and apply various concepts, especially in the legal umbrella that underlies its implementation in the future in order to make a clean energy transition as a whole. Government support for NRE development is not only carried out through the APBN through ministry/institutional expenditures, transfers from the central government to regional governments and PPP schemes, but also through fiscal incentive policies. Fiscal policy in the form of providing (i) income tax facilities in the form of tax allowances, tax holidays and exemptions for income tax article 22 imports; (ii) import facilities in the form of exemption from import VAT and import duty; and (iii) special PBB reduction facilities for the geothermal sector. Utilization of NRE for job creation through renewable energy investment, both domestic and foreign investment. The implementation of legal development in the context of energy security is based on Pancasila and Article 33 of the 1945 Constitution of the Republic of Indonesia, namely energy must be used for the greatest benefit of the people, nation and state. The government, through the Ministry of Energy and Mineral Resources (ESDM), intensively discusses and prepares the New Energy and Renewable Energy Bill (RUU).

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