



The Model for Establishing Community-Based Renewable Energy Regulation in Indonesia with Just Transition

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Abstract—This research examines the model for establishing community-based renewable energy regulation in Indonesia with Just Transition. The current Energy Law still does not provide certainty, protection, and benefits for people who want to manage small-scale renewable energy, but the opposite is true for business people. This research uses a normative juridical research method. The findings from this research show that the current energy law only provides benefits in the form of incentives, certainty, and protection in managing energy for business actors, while for the community the form of participation in managing energy takes the form of providing advice. Seeing these problems and the complexity of renewable energy in Indonesia, using Just Transition this research will examine the model for establishing community-based renewable energy regulations in Indonesia.

Keywords—Renewable energy; Just Transition; Public; Formation Model; Regulation.

I. INTRODUCTION

As a country that has abundant natural resources, of course, Indonesia utilizes and manages these natural resources, both renewable and non-renewable [1]. In its management, the use of fossil resources is dominated, such as the use of coal, natural gas, and petroleum [2]. Considering that fossil resources are non-renewable resources, of course, supplies are currently running low [3]. According to data from the Director General of New, Renewable Energy and Energy Conversion, Ministry of Energy and Mineral Resources, in 2018, gas fuel reserves amounted to 151.33 Trillion Cubic Feet (TCF), which is predicted to run out in 2067, oil reserves are predicted to be 3.7 billion barrels. will run out in 2028, and coal reserves of around 7.3-8.3 billion tons are predicted to run out in 2026 [4]. The use of fossil resources has also resulted in very drastic climate changes even before the 21st century ends [5] such as increasing environmental temperatures [6]. Realizing that the use of fossil resources is depleting, Indonesia has begun to commit to reducing them [7] and has even signed the Paris Agreement [8].

To reduce fossil resources, Indonesia is starting to use renewable resources such as wind, water, and sunlight [13]. In its management, as stated in the Energy Law, both the Government and the community can manage energy, but this form of participation from the community is only limited to providing input in the form of ideas and information and not to carrying out management activities. Apart from that, there is no incentive assistance for the community. In practice, the community can participate in managing renewable energy such as processing waste into biogas, and can apply for funds from the government but must be in the form of a group. This is different for business actors who are guaranteed incentive assistance as in Article 21 paragraph (3), even in licensing the state also provides incentive assistance such as exemption from entry fees for importing equipment if included in the negative list, reduction in gross income for those carrying out advocacy activities. and R&D, as well as tax holidays and tax allowances [14].

Considering that Indonesia is heading towards Net Zero Emissions by 2060, using the regulations of Law Number 30 of 2007 alone is not enough, there needs to be a revision of regulations that must adapt to current conditions [15] and there is a need to strengthen community participation in managing energy, so it is necessary to The law

relates to community-based renewable energy. In this research study, Just Transition is used, which is a concept of efforts to achieve a just energy transition for society by considering space and time [16].

by this research, it is hoped that it can become material for further studies in drafting regulations related to renewable energy and research, especially in the social sector, considering that the amount of social research related to energy is still very small [17], not only that, even in terms of policy formulation, there is also less attention to the social side. [18], such as the Pathways to 2050 document created by the UK Department of Energy and Climate Change which only focuses on the use of technology capable of utilizing energy but does not pay attention to the societal side such as whether there will be an impact on society if this technology is replaced [19]. Therefore, the discussion in this research is related to current regulatory problems and practices regarding renewable energy management for the community and how Just Transition is a model for establishing community-based renewable energy regulation in Indonesia.

II. LITERATURE REVIEW

A. *Inequality between Energy and Social Society*

1. Various kinds of literature show that dominance related to energy is more predominantly discussed from a technological perspective [17] including in this case the provision of research grants [20]. Not only that, this inequality is also visible in government institutions which only have a few staff in the social sector [21], and journals which are also dominated by those related to energy and technology. According to research conducted by Benjamin K. Sovacool who examined 4,444 articles over 15 years from 1999-2013, it was found that several journals underestimated the social influence in energy, had a bias towards energy use and technology and other social sciences, lacked collaboration from several experts and lack of authors from women or minority groups [17]. Not only that, but Benjamin K. Sovacool also found that studies on energy and social issues were only 2.2% [17]. Apart from that, from a policy perspective, there is still little attention to the social side. As the Pathways to 2050 report issued by the UK Department of Energy and Climate Change only discusses such technologies and resources as forecasting hot water needs, low demand scenarios, presupposes that when replacing consumer electronics products and home computing products, this policy can only adopt products with best practices until 2050 [19].

III. METHOD

This research uses a normative juridical research method, which is carried out with a statutory approach, which is supported by primary legal materials in the form of applicable laws and regulations and secondary legal materials in the form of relevant legal books.

IV. RESULT AND DISCUSSION

A. Problems with Regulations and Practices for Community-Based Renewable Energy Management

1. If you look at it from a regulatory perspective, currently there are no regulations regarding renewable energy, and even if there are regulations relating to energy management carried out by the community in the form of community participation in developing energy as stated in Article 19 of Law Number 30 of 2007 concerning Energy, namely in the form of giving input in the form of written ideas, data and/or information. Apart from that, there are no regulations regarding requests for biogas management incentives for the community, however, lawmakers provide incentives for business entities, permanent business forms, and individuals as stated in Article 21 paragraph (3) of Law Number 30 of 2007 concerning Energy. People can apply for funds from government agencies, but this can only be done as a group,

2. Regarding the provision of funds, several government agencies explained that people who wish to apply for funds related to biogas management need to do so in groups by making proposals, and later the relevant agencies will examine the results of the proposals. If the proposal is approved, there will be an agreement between the relevant agency and the community as the funding applicant, the aim of which is that the community as the funding applicant will take care of the assistance provided in the form of tools. Assistance in the form of funds is not provided and agreements are made because the community as the applicant for funds often does not take care of the assistance provided by an agency, giving rise to a sense of distrust. Several government agencies, both provincial and regional, admit that funds submitted by the public may not necessarily be approved due to limitations in the Regional Revenue and Expenditure Budget (APBD).

3. If traced, the APBD Of Central Java Province, for example, is related to energy as follow :

NO	Program/Activity	Pure Regional Revenue and Expenditure Budget (Rp)	Regional Revenue and Expenditure Budget Amendment (Rp)	Description
1	Electricity Management Program	18.822.300.000	18.386.521.000	Regional Revenue and Expenditure Budget
2	Renewable Energy Management Program	14.775.008.000	14.727.518.000	Regional Revenue and Expenditure Budget
3	Mineral and Coal Management Program	4.204.579.000	4.245.609.000	Regional Revenue and Expenditure Budget
4	Geology Aspect Management Program	7.567.243.000	8.226.328.000	Regional Revenue and Expenditure Budget
5	Regional Government Support Program	55.020.222.000	52.223.500.000	Regional Revenue and Expenditure Budget
	Amount	100.389.352.000	98/259.476.000	Regional Revenue and Expenditure Budget

Picture 1. Central Java Province Energy and Mineral Resources Department Budget Data for 2023
 Source: Government Agency Performance Report (LKjIP) Department of Energy and Mineral Resources, Central Java Province 2023 [24]

Program	Description
Local Government Management Support Program	Regional Apparatus Financial Administration
	General Administration of Regional Devices
	Procurement of Regional Property Supporting Regional Government Affairs
	Provision of Supporting Services for Regional Government Affairs
	Regional Apparatus Financial Administration
	Administration of Regional Property in Regional Apparatus
Renewable Energy Management Program	Implementation of Energy Conservation in the Provincial Area
Electricity Management Program	Administration of Operating Licenses with Installation Facilities in the Provincial Area
	Budgeting for Disadvantaged Communities, Development of Undeveloped Electricity Supply Facilities, Remote and Rural Areas
Geology Aspect Management Program	Designation of Groundwater Conservation Zones in Groundwater Basins within the Provincial Area
	Administration of Management Permit, Excavation Permit, Usage Permit, and Groundwater Control Permit within the Provincial Area
	Determination of Groundwater Acquisition Value in the Provincial Area
Mineral and Coal Management Program	Administration of Non-Metallic Mineral and Rock Mining Business License in the Context of Domestic Investment in Regional Mining Business License Areas Located in 1 (one) Provincial Region Including Sea Areas Up to 12 Mill Seas
	Benchmark Pricing of Non-Metallic Minerals and Rocks

Picture 2. Central Java Province Energy and Mineral Resources Department Budget Data for 2023
 Source: Government Agency Performance Report (LKjIP) Department of Energy and Mineral Resources, Central Java Province 2023 [24]

4. From these two pictures, it can be seen that the realization of APBD funds for energy in Central Java Province, for example, is mostly used for programs to support Regional Government affairs with total funds of IDR 52,223,500,000.00 (Fifty Two Billion Two Hundred Twenty-Three Million Five Hundred Thousand Rupiah) compared to the Renewable Energy management program which in 2023 will be used to implement Energy conservation in the Provincial Region with total funds of IDR 14,727,518,000.00 (Fourteen Billion Seven Hundred Twenty-Seven Million Five Hundred and Eighteen Thousand Rupiah).

5. The differences in providing incentives are different for business actors who want to manage energy. For example, for the development of renewable energy in the form of biofuel from palm oil, there are incentive regulations as stated in Government Regulation Number 24 of 2015 concerning the Collection of Plantation Funds and Presidential Regulation Number 61 of 2015 concerning the Collection and Use of Palm Oil Plantation Funds which have been amended by the second amendment in the 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 and incentives for the development of renewable energy for the supply of electricity as stated in Presidential Regulation Number 112 of 2022 concerning the Acceleration of Renewable Energy Development for the Supply of Electricity [25]. There are also incentives for business actors who register business permits in the Electronically Integrated/Online Single Submission (OSS) Business Licensing System as stated in Government Regulation Number 5 of 2021 concerning the Implementation of Risk-Based Business Licensing with the Standard Classification of Indonesian Business Fields (KBLI) number 35203 namely in the form of exemption from entry fees for importing equipment if it is included in the negative list, a reduction in gross income for those carrying out advocacy and R&D activities, and actors developing biomethane will receive

a tax holiday which is a tax facility for newly established companies regarding freedom to pay corporate income tax. for a certain period and tax allowance which is a reduction in income tax measured based on the amount of investment provided [26] if it is included in a Special Economic Zone (KEK) [14]. From this, it can be seen that there are many incentives given, especially to business actors compared to the community, even though the goal is the same as wanting to manage renewable energy.

B. Just Transition in the Model of Forming Community-Based Renewable Energy Arrangements in Indonesia

Just Transition consists of [27]:

Distributive justice which discusses the distribution of benefits from the energy sector and its negative impacts;

Procedural justice which discusses legal processes and what laws are required;

Cosmopolitan justice which considers impacts that occur outside the country's territory;

Restorative justice which discusses the unfair impacts of energy;

Recognition justice which discusses the recognition of the rights of minority groups and society;

Space relates to the location of events that occur [28];

Time relates to the target time for making the transition.

Regarding the model for establishing community-based renewable energy regulation using the just transition concept, there is a need for discussion related to distributive justice, such as whether there are benefits if community groups manage renewable energy, procedural justice will discuss whether there is a legal process that is needed if there is an energy distribution conflict, cosmopolitan justice is related to whether there is an impact on border communities who want to manage renewable energy which affects other countries, restorative justice is related to whether there is recovery from the impact if energy injustice arises, recognition justice is related to recognizing the rights of minorities who participate in managing energy renewable, space relates to the location where it is to be implemented, such as whether the management of renewable energy for the community needs to be uniform or not considering that each region has different natural resources and topography, and time relates to when is the ideal time to start implementing energy management for this society.

V. CONCLUSION

It is still felt that the current Energy Law does not provide enough certainty, protection, and benefits for people who want to manage renewable energy considering that in this regulation community participation is very limited. This is different if business actors also want to manage renewable energy, such as providing incentives and the certainty of being able to manage energy. Therefore, a community-based Renewable Energy Law is needed that applies the just transition concept which consists of distributive justice, procedural justice, cosmopolitan justice, restorative justice, recognition justice, space and time.

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