Nat. Volatiles & Essent. Oils, 2021; 8(4): 13269-13279

NVEO
Natural Volatiles &
Essential Oils

New Renewable Energy Regulations In Supporting Indonesia's Halal Industry: Comparison With Germany

Muthia Sakti[1] , Pujiyono[2] , Moch Najib Imanullah[3]

[1.2.3] Faculty of Law, Universitas Sebelas Maret, Surakarta, Indonesia

Abstract

This article aims to describe the role of renewable energy in supporting the halal industry in Indonesia. As a Muslim majority population, Indonesia's potential to become a world halal centre is wide open. To achieve this goal, the synergy between sectors related to the halal industry is needed: new renewable energy. However, the inconsistent regulations in Indonesia have hampered the development of new renewable energy, one of which is rules related to investment. Renewable energy costs a lot of money but can save on electricity or fossil energy, so investors are needed to develop their initial business. This new renewable energy development will later be used for several other halal food and beverages, pharmaceuticals and cosmetics, fashion, and halal tourism. Indonesia's geographical condition can also be regarded as one of the supporters ofdeveloping new renewable energy.

Keywords: Renewable,Energy, Halal,Industry.

I. Introduction

As the philosophical norm of the Indonesian state, Pancasila gives every citizen the right to carry out relationships between individuals and carry out relationships with God. Every Indonesian citizen is guaranteed constitutional rights by the 1945 Constitution, such as human rights, the right to religion and worship, legal protection, and equal rights and status under the law. This includes the right to a decent life, namely the right to use products that ensure the quality of life and human life(Sidabalok, 2006).The World Population Review data shows that Indonesia has the largest Muslim population with 231,000,000 (two hundred and thirty-one million) people. The demand for the availability of halal products is relatively great(Fatmawati, 2011).

Indonesia has a huge opportunity to develop its halal industry independently. However, what is very unfortunate is the unavailability of an environment that is aware of this potential. Indonesia’s

contribution with its abundant human and natural resources in the world's halal industrial market is only as a consumer. Therefore, many parties seek to strengthen the halal value chain, an integrated industry effort from the input, production, distribution, marketing to consumption stages(Subianto, 2018).Renewable energy is one of the clusters being pursued because it is believed to be a strengthening catalyst.

Perry Warjiyo explicitly stated that so that the development of the halal economic chain can be competitive and productive and impact national economic growth and the economic empowerment of the people, renewable energy is one of the meaningful clusters. One of the sectors in the halal industry that is actively developing is halal tourism. The emergence of halal tourism has motivated Indonesia to become one of the most prominent players in this industry. Halal tourism is popular among Islamic countries or countries with a majority Muslim population andin some non-Muslim countries, such as Japan, South Korea, and Thailand (Kawata et al., 2018).

Renewable energy is currently a hot topic of discussion in every country globally due to the awareness of increasing gas emissions and the depletion of the availability of fossil energy sources (Halimatussadiahet al., 2020). In Indonesia, the potential for renewable energy, especially solar energy and wind energy, reaches 4.8 kWh/m/day and 970 MW, respectively, at wind speeds of 4-6 seconds (Teknologi, 2018). Not a few countries seem to be competing to utilise and develop renewable energy. This is marked by the rise of green policies issued by many countries globallyand the increasing investment in renewable energy over the past few years. Renewable energy investment recorded in 2005 was around USD 80 billion, increasing significantly to USD 310 billion in 2017 (Irena, 2021). As a signatory country to the Paris Agreement, Indonesia has committed to transitioning to a low-carbon economy achieved by developing new renewable energy (NRE). This commitment is demonstrated by the issuance of Presidential Regulation Number 22 of 2017 on the General National Energy Plan (RUEN), which targets the renewable energy mix of 23% in 2025 and 31% in 2050. The Presidential Regulation elaborates Government Regulation Number 79 of 2014 on National Energy Policy (KEN). KEN uses the assumption of particular economic and population growth in Indonesia (including the halal economy) torealise energy independence and security.

Renewable energy can be a catalyst for strengthening the halal value chain. The scientific writing aims to describe the synergy of NRE with sharia economics and produce four things which consist of(Iskandar et al., 2021):

a. The Islamic finance sector can be one of the solutions to the problem of the lack of availability of financing instruments by NRE investment needs.
b. The use of renewable energy in Indonesia can spearhead the halal industry, including halal food and beverages, Muslim fashion, halal tourism, halal pharmaceuticals and

cosmetics, and halal media and recreation. Especially in the halal tourism industry, Indonesia can synergiseNRE production sites to become green tourism-based tourism destinations.

c. In the context of NRE financing that is socio-religious, NRE can be carried out with the concepts of ta'āwun and alms jariah; and;
d. Some of the Quick Wins steps and programs that can be done are:
    1) campaign on the excellence of renewable energy to achieve national energy self-sufficiency;
    2) creating ease of access and attractive financing schemes to support renewable energy;
    3) conducting research and publications on renewable energy and potential collaboration with other industries in the halal value chain;

However, in this writing, it has not been discussed regarding the implementation of the two regulations that are the foundation for developing NRE in Indonesia, namely RUEN and KEN, which is still often encountered with substantial obstacles, such as not prioritising NRE or not realising that NRE is a pioneer industry that requires high externalities. For this reason, this paper is made to describe the shortcomings, challenges, and solutions that can be applied in the future in terms of substance in the development of NRE to support the halal industry business by reflecting on the regulations that the country has implemented with the best manufacturing quality in the world, namely Germany.

II. Reserch Methods

In compiling this research, using the type of juridical legal research, namely with an approach that refers to the applicable laws and regulations (Benuf& Azhar, 2019). In addition, the author also uses a descriptive comparative method by comparing the existing regulations related to renewable energy in Indonesia with Germany.The data sources used are library materials consisting of primary and secondary legal sources. The primary legal materials used include Indonesia and Germany's relevant laws and regulations. At the same time, the origins of secondary legal materials used are data containing the exposure of primary legal materials, including books, legal journals, and other references. Furthermore, the research results are described in the form of analytical descriptive.

III. Results and Discussion

New Renewable Energy Clusters as Support for Halal Value Chains

One of Indonesia's leading economists, the nickname "Father of Cooperatives", is DrDrs. Mohammad Hatta, in 1934 introduced the concept of a populist economy. This concept is described as an economic condition in which economic activities are implemented independently to manage the surrounding resources(Pohanet al., 2018).This concept is also contained in Article 33, paragraph 4 of the 1945 Constitution of the Republic of Indonesia, which explicitly states that the economy in Indonesia is carried out based on the principles of being independent, sustainable, and environmentally sound. Increasing the economy of a country will impact the welfare of society. The primary key in the welfare state is the issue of guaranteeing the interest of the people by the state. Regarding this matter, Jurgen Habernas argues that ensuring the welfare of all people is the main thing for a modern state(Fishmen, 1986).

According to the Ministry of Energy and Mineral Resources, energy is a basic need per year, with an average growth rate of 7 per cent, and 94 per cent of needs still depend on fossil energy. With current conditions, Indonesia contributes 50 per cent of the most significant carbon emissions from the Land Use, Land Use Change, and Forestry (LULUCF) sector. Energy use in Indonesia is expected to be dominated by the need for electricity in the industrial sector, followed by the transportation and household sectors, so that the fulfilment of high energy needs in the future must be pursued, including the use and implementation of environmentally friendly new and renewable energy (NRE) torealise national energy security(Azhar &Satriawan, 2018).

On this basis, renewable energy can strengthen the halal value chain. Seeing the potential of natural resources that are a source of renewable energy such as water, sunlight, wind, sea waves, and so on, it is conceivable if the wealth of natural resources is managed and utilised as well as possible for the benefit of the people, including supporting the halal industry in various fields, both In terms of tourism, food, and beverages, Muslim fashion, pharmaceuticals, and cosmetics, as well as media and recreation, it is possible that Indonesia's aspirations to become an economically independent country can be realised. As an illustration of the prosperity of the halal industry, if NRE is maximised, namely in the field of halal tourism, developers do not need to spend serious money on electricity by installing rooftop solar panels. Halal tourism investors will also emerge because, with the construction of hydroelectric, solar, or even ocean waves, there is a great potential for opening tourist destinations located in remote areas because the purpose of building NRE power plants is mostly for areas that are difficult to reach, not big cities. The food and beverage industry, Muslim fashion, as well as halal pharmaceuticals and cosmetics will also develop rapidly because NRE can increase the profits of these industrial drivers because by utilising rooftop solar panels, they are likely not to have to pay for electricity and instead become the electricity supplier that the State Electricity Company will produce.

In general, with maximum NRE management, it is also possible for Indonesia to be ranked first in the Muslim Food Expenditure with a value of USD 1247.8 in 2017 to become the first ranked halal industrial producer(Kamila, 2021). With self-sufficiency in domestic production, the whole system is environmentally friendly and sustainable. It will slowly create an environment or culture that is literate and able to capture the market potential of the halal industry. That way, in essence, this renewable energy is a cluster that deserves to be developed because its benefits will last for a very long time, considering that its resources will not run out. The implementation of renewable energy is also a stepping stone so that Indonesia can become the world's halal centre. Thus, man must prosper the earth as a religious obligation(Jaelani, 2017), including energy for human welfare and developing renewable energy (Watsiqotulet al., 2018).

To strengthen the value of the halal chain, notable synergies are needed. Among them, the halal industry ecosystem through the Islamic finance sector can be one solution to the problem of the lack of availability of financing instruments that suit the needs of NRE investment. Through various Sharia-based financing with multiple schemes, the halal industry ecosystem can contribute to being one of the supporting factors in achieving the NRE targets that have been set for 2025 and 2050. In developing renewable energy investment, the government and the private sector share their portions in investment. Sources for renewable energy in Indonesia include the ministry and the State Electricity Company, Regional Revenue and Expenditure Budgets, grants, and green bonds. Another funding scheme is through PPPs (cooperation between the government and business entities) with independent power producers. Investments through the Regional Revenue and Expenditure Budget scheme (special allocation funds) and investments by other ministries.

The high need for funding for renewable energy development is a potential for Islamic finance to collaborate through its financial products. One of the Islamic financial instruments that can be utilised is the Sukuk. Sukuk can fund projects related to sustainable energy. These include clean energy, mass transportation, water conservation, forestry, and low-carbon technology. The halal sector can utilise the results from the renewable energy industry, improving the halal value chain. Synergy in renewable energy by sectors in the halal industry ecosystem can support long-term sustainable economic improvement. Several sectors in the halal industry can utilise renewable energy.

Substantial Challenges and Opportunities for Renewable Energy Development to Support the Halal Industry

The development of renewable energy sources that are needed by the community, in maqasidshari'ah (sharia goals) in the aspect of maintaining human life, then the product of

renewable energy aimed at human survival, the need for energy consumption, community welfare, and avoiding energy crises, then the development of renewable energy is religiously obligatory (Jaelani, 2016) as stated in the introduction, that the NRE cluster is a pioneer industry that requires high externalities. There are many challenges and obstacles, especially related to regulations in implementing its management. It is not easy indeed to support all aspects of the halal industry through NRE because until now, the use of NRE in Indonesia is still being studied, and there is no legal standing at the level of the law that regulates NRE activities as a whole.

Concretely, the main obstacle and challenge to developing NRE is the need for high capital with a low purchase value for production. Therefore, actually to support the halal industry in Indonesia, although rooftop solar electricity has actually started to contribute and is widely used to support the drivers of the halal industry, especially in the fields of tourism, food, and beverage, Muslim fashion, as well as pharmaceuticals and cosmetics because of the rooftop solar panels. This has been installed in malls, factories, and other commercial places. However, in terms of regulation itself, there are still many things that have not been regulated in detail and clearly, so that it becomes an obstacle to the development of NRE. Indonesia does not yet have a fiscal regulation that explicitly governs the financing or fiscal incentives of NRE. Based on the Ministry of Energy and Mineral Resources data, Indonesia needs Rp funds to achieve the RUEN targets. One thousand six hundredtrillion(Perencanaan& Nasional, 2017), and special regulations regarding fiscal convenience are required to create a development investment climate to meet these targets. The rules that Indonesia has regarding financing are also still commercial. Whereas if you refer back to the concept of a populist economy which is also contained in Article 33 of the 1945 Constitution, which states that "earth, water and natural resources contained therein are controlled by the state and used for the greatest prosperity of the people" then in the case of NRE if the utilisation is If it is intended for the benefit of the people such as boosting the development of the halal industry, then conceptually by paragraph 3 of Article 33 of the Constitution, the relevant agencies in the NRE sector, which in this case are the Ministry of Energy and Mineral Resources, PLN and the Director-General of EBTKE, do not need to think about profit. These agencies may lose money as long as the loss is in the people’s interests.

In addition to commercial and regulatory issues, even though the cost of developing NRE is not tiny, the challenge of developing NRE to support the halal industry lies in a culture that has been growing in society for too long. Just as Indonesia occupies the first position as a consumer of the halal industry in the world even though Indonesia also occupies the first position with the largest Muslim population in the world, which means that the Indonesian people themselves have not widely realised the potential of the halal industry, new renewable industrial clusters are also like

that. Indonesia's potential for abundant renewable energy resources is excellent, but this is still widely ignored because they are complacent about practicality, favourable prices, and dependence on fossil energy. Although this cultural challenge is not technical, such as financing or fiscal, regulation remains influential because the law can also shape or change a culture or people's behaviour. In Indonesia itself, as mentioned in the paragraph above, there is still a legal vacuum in the NRE sector. No regulation substantially regulates the wider community's adjustments to realise sustainable development. Thus, this legal vacuum challenges NRE in supporting the halal industry.

From natural resources, Indonesia has abundant natural resources. This natural resource is limited to one energy because all renewable energy components exist in Indonesia. Renewable energy sources, including water, wind, solar, geothermal, and biogas, are available in Indonesia. The fact that happened in Indonesia, the fulfilment of energy needs is still dependent on fossil energy. Meanwhile, the use of renewable energy is not optimal. For this reason, several things must be considered again regarding the regulation of NRE development so that its role as a strengthening cluster for the halal industry can be carried out properly, including:

First, the implementation of RUEN and KEN needs to be seen as targets to create sustainable development so that in their performance, based on what is stated in Article 33 paragraphs 3 and 4, relevant agencies do not need to worry if they have to lose money because they issue incentives or finance half the cost of production. After all, as long as the purpose of developing NRE is for the common good, government agencies can lose money.

Second, the relevant agencies should formulate special fiscal incentive regulations to develop the NRE industry because of the things mentioned above. The use of NRE will be optimal, and its role as the spearhead of the halal industry can be implemented.Third, related to the cost of developing NRE, relevant agencies can synergise with one of the fields in the halal industry ecosystem, namely the Islamic finance sector. This can be a solution to the problem of the lack of availability of financing instruments by the needs of NRE investment. Through various sharia-based financing with multiple schemes, the halal industry ecosystem can become one of the supporting factors in achieving the NRE target for 2025 and 2050.Fourth, reflecting on the regulations applied in Germany, especially in halal tourism, the synergy between NRE and the halal tourism industry can be done by making proposals for tourism potential and the construction of NRE power plants.

Fifth, the need for regulations that regulate the limits of NRE utilisation activities with guaranteed legal certainty, as well as expanding a more comprehensive development plan considering that in the 2015 Paris Agreement signed by Indonesia, there is a commitment that 5000 companies will participate in 90 countries consisting of 500 investors with investment value of USD 25 trillion which will fund the development of NRE. For this reason, Indonesia can take advantage of this, considering

that cost is one of the biggest challenges in developing NRE. The development plan and complete information related to the area's potential to be built for NRE plants.Sixth, to create public awareness of NRE and, a campaign or socialisation related to the potential of NRE can be carried out along with its benefits in supporting the halal industry so that many halal industry consumers in Indonesia can realise this potential.Seventh, conducting research and publications on renewable energy and the potential for integration between halal industry sectors.

Comparison of Indonesia and Germany

Seeing Indonesia's substantial challenges and opportunities, it is better to look at other countries expecting EBT to support the halal industry long before Indonesia established RUEN and KEN, namely Germany. Germany is located in mainland Europe with a low Muslim population, but in terms of EBT, Germany has issued a transition policy to renewable energy called "Energiewende". The availability of a well-integrated inter-state electricity network to overcome the shortage and excess of electrical energy through the import-export scheme of electrical power with neighbouring countries. Data from the last ten years shows that Germany is a net exporter of electrical energy in Europe. Germany mainly imports electricity from France and the Czech Republic in terms of electricity imports, both of which utilise nuclear power production. In contrast, the leading electricity export destinations are Austria, Switzerland, and the Netherlands. The shortage of electricity in neighbouring Germany can be used to sell off excess energy, especially when renewable energy production is at its peak (Sunarkoet al., 2018).

In Germany, the factor of renewable generation capacity, which is only about 30 per cent of renewable electricity generation, and the incentives provided by the government for people to build independent energy plants have led to a very massive expansion of renewable power generation. The energy price can be harmful at certain times, i.e. when the state even pays for those who use electricity. The cost of age, which is higher than the selling price of electricity, also causes the German government to provide subsidies, and the amount is increasing. This burden by the government must partly be borne by the power generation companies and, in the end,thenby the consumers (Buchan, 2012).

Energiewende focuses on the development of renewable energy in terms of power generation. As a leading country in manufacturing, Germany considers electricity to be the main element in running industry and households (European Renewable Energy Council, 2010). With the enactment of Energiewende, Germany managed to become the country with the most extensive electricity capacity with a total of 45 Giga Watt (GW) in 2015 (The European Wind Energy Association (EWEA), 2015).In addition, in the field of the halal industry, the Energiewende regulation can integrate the

renewable energy sector with the halal tourism industry in Germany. The synergy between NRE and halal tourism contained in the lawcan expand the function of tourism locations without disturbing its primary function to produce energy. Thanks to that, Germany is also in second place after the United Arab Emirates, which is included in the list of the most desirable vacation destinations for Muslim tourists according to a survey conducted by market research firm IPK International(Crescentrating, 2017). In addition to developing renewable energy in Germany, the program can expand its function as a tourism location without disrupting its primary function to produce energy. It is undeniable that the addition of the process of renewable energy sources will increase the economic contribution in Germany.

Unfortunately, the strengthening of the halal industry by NRE of this nature has not been implemented in Indonesia. Indonesia again cansynergise the potential for NRE development with its halal tourism. The Ministry of Tourism has created several leading halal tourist destinations, one of which has a high potential for marine energy and solar system to become one of the halal tourism synergises with NRE, namely West Nusa Tenggara (NTB).

IV. Conclusion

Indonesia has adequate natural and human resources to develop EBT to support the halal industry. Indonesia explicitly reflects thisrich in renewable energy sources ranging from water and solar power to the sea. Indonesia is also the country with the largest Muslim population in the world. However, it is unfortunate that this has not been widely realised by the general public, including the relevant agencies. This is because the existing regulations have not fully implemented the concept of sustainable development and a people's economy. Several ideas for developing new renewable energy in Indonesia are by accelerating the ratification of the New Renewable Energy Act, preparing special incentive regulations by dividing 3 (three) particular areas, namely land, roof, and floating. In addition, by arranging a fair and rational auction scheme, compiling regulations regarding guarantees for purchasing NRE electricity and installing panels in government buildings, andsynergising with cross-sectoral ministries related to incentives and the provision of production materials.

References

Azhar, M., &Satriawan, D. A. (2018). ImplementasiKebijakanEnergiBaru dan EnergiTerbarukan Dalam Rangka KetahananEnergi Nasional. Administrative Law and Governance Journal, 1(4), 398–412. https://doi.org/10.14710/alj.v1i4.398-412

Benuf, K., & Azhar, M. (2019). MetodologiPenelitian Hukum sebagaiInstrumenMenguraiPermasalahan Hukum Kontemporer. MetodologiPenelitian Hukum SebagaiInstrumenMenguraiPermasalahan Hukum Kontemporer, 3(2).

Buchan, D. (2012). The Energiewende - Germany's gamble. Oxford Institute for Energy Studies.

Crescentrating, M. &. (2017). Global Muslim Travel Index 2017.

European Renewable Energy Council. (2010). Renewable Energy in Europe: Markets, Trends, and Technologies (2nd ed.). Earthscan.

Fatmawati. (2011). Perlindungan Hak Atas KebebasanBeragama dan Beribadahdalam Negara Hukum Indonesia. JurnalKonstitusi, 8(4), 489–520.

Fishmen, K. S. (1986). An Overview of Consumer Reporting Service.

Halimatussadiah, A., Amanda Siregar, A., & Farah Maulia, R. (2020). Unlocking Renewable Energy Potential in Indonesia: Assessment on Project Viability. https://databoks.katadata.co.id/datapublish/2020/01/10/

Irena. (2021). Renewable Power Generation Costs 2020. www.irena.org

Iskandar, A., Aqbar, K., & Herman, S. (2021). EnergiTerbarukan dan Ekonomi Syariah: SinergitasMewujudkan Sustainable Development. SALAM: Jurnal Sosial Dan BudayaSyar-i, 8(3). https://doi.org/10.15408/sjsbs.v8i3.20347

Jaelani, A. (2016). Public Financial Management in Indonesia: Review of Islamic Public Finance. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2807095

Jaelani, A. (2017). KebijakanEnergiBaruTerbarukan di Indonesia: IsyaratIlmiah Al-Qur'an dan ImplementasinyadalamEkonomi Islam. Annual International Conference on Islamic Studies (AICIS). http://www.sciencepublishinggroup.com/journal/peerreviewers?journalid=213;

Kamila, E. F. (2021). Peran Industri Halal Dalam MendongkrakPertumbuhanEkonomi Indonesia di Era New Normal. JurnalLikuid, 1(1), 33–42.

Kawata, Y., Htay, S. N. N., & Salman, A. S. (2018). Non-Muslims' acceptance of imported products with halal logo. Journal of Islamic Marketing, 9(1), 191–203. https://doi.org/10.1108/JIMA-02-2016-0009

Perencanaan, B., & Nasional, P. (2017). Masterplan Ekonomi Syariah Indonesia 2019-2024: Hasil Kajian AnalisisEkonomi Syariah di Indonesia.

Pohan, A. I., Krisdayanti, A. E., & Simanjuntak, D. B. (2018). RekonstruksiPemikiranEkonomiKerakyatan Mohammad Hatta. JurnalIlmuPolitik Dan Pemerintahan, 4(1), 21–31.

Sidabalok, J. (2006). Hukum Perlindungan Konsumen di Indonesia. Citra Aditya Bakti.

Subianto, P. (2018). Rantainilai dan perspektifkesadaranmasyarakatmuslimakanmakanan halal. 1, 141–146.

Sunarko, Syahna, B. D., &Suryanto, S. (2018). Program Energiewende di Jerman dan RencanaPemanfaatanEnergiTerbarukan di Indonesia. Prosiding Seminar Nasional InfrastrukturEnergi Nasional (SIEN), 75–84.

Teknologi, B. P. dan P. (2018). OUTLOOK ENERGI INDONESIA 2018. www.bppt.go.id

The European Wind Energy Association (EWEA). (2015). Wind in Power: 2015 European Statistics.

Watsiqotul, Sunardi, & Leo Agung. (2018). Peran Manusiasebagai Khalifah Allah di Muka Bumi PerspektifEkologisdalamAjaran Islam. JurnalPenelitian, 12(2).