Accomplishment of Danish International Development Agency (DANIDA) on Actualizing Energy Democracy in Central Java with Environmental Support Programme Phase-3 (ESP-3) Program

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Abstract
This research analyses the energy democracy in Central Java conducted by the Danish International Development Agency (DANIDA) in the Environmental Support Programme Phase 3 (ESP-3) scheme. This research aims to explain DANIDA's effort to actualize energy democracy through the outcome of a clean energy management project in Central Java within four chosen regions, i.e. Semarang City, Cilacap Regency, Klaten Regency, and Karimunjawa Islands. In order to analyse this problem, the writer used energy democracy as an effort to achieve equity in energy access. Qualitative methods are used in this research, emphasizing the use of secondary data, including earlier research, official documents, and related archives, using primary data from interviews with related informants. This research shows that DANIDA can actualize energy democracy in Central Java, manifesting Denmark's commitment to global environmental problem mitigation. Two indicators of energy democracy, such as popular sovereignty and participatory governance, proved from local community satisfaction response by local government involvement and the increase of energy supply which fulfilled the needs. The third indicator, civic ownership, including ownership of access, was not seen clearly; however, the local community acquires access availability. Those indicators,
therefore, become the benchmark of DANIDA's accomplishment of energy democracy in Central Java.

**Key Words:** DANIDA, Central Java, ESP-3, Energy Democracy
INTRODUCTION

As part of the Nordic region, which is famous for its technological advances, Denmark is one of the countries that actively promotes the use of environmentally friendly energy. Advanced technology, well-organized energy policies, and a commitment to environmentally friendly energy policies have made Denmark almost no significant energy problem, despite the energy crisis that has occurred several times in the world (Parajuli, 2012). In promoting environmentally friendly energy in the world, Denmark cooperates with other countries, including Indonesia.

In 2005, Denmark and Indonesia agreed to cooperate in the environmental sector. Denmark, which in this collaboration was represented by the Danish International Development Agency (DANIDA), and Indonesia, represented by several ministries and local governments, created a program called the Environmental Support Program (ESP) which aims to support the implementation of sustainable development in Indonesia. ESP has reached the third stage (ESP-3) by emphasizing three components: the environment, energy, and forests (Sirait, 2018). One of the projects under ESP-3 was carried out in Central Java. The ESP-3 project in Central Java is carried out in four areas, namely Semarang, Cilacap, Klaten, and the Karimunjawa Islands, aiming to increase electrification and energy consumption efficiency without damaging the environment. This clean energy project in Central Java benefits local communities and reduces the region's dependence on fossil energy for their activities. In its development and implementation, this project can be said to be successful because it can be seen from the benchmarks of community satisfaction, such as the environment that has begun to be well-organized and managed at the Jatibarang TPA, Jeruk Legi TPA, and Daleman Village. Then in terms of energy supply, such as PLTS in the Karimunjawa Islands, people who were previously only able to get electricity supply for 6 hours can now meet their electricity needs for up to 24 hours. The reason why Indonesia was chosen as one of the Asian countries in the DANIDA project is that Indonesia itself is a country with a relatively high rate of deforestation and continues to expand, especially with Indonesia's demographic and economic growth conditions that continue to increase (Ministry of Foreign Affairs of Denmark, 2007). According to the Danish Ambassador Rasmus Abildgaard, Central Java was chosen to be a pilot area for renewable energy projects because of the vision of a Governor of Central Java who can see the area's potential in efforts to develop renewable energy technology. Besides that, technically, Central Java was chosen because this province is ideal. To apply the technology desired by the Danish party (Humas Central Java, n.d.).
This paper provides an analysis of the role of DANIDA in realizing energy democracy in Central Java through the ESP-3 project. Energy democracy itself manifests efforts to achieve equitable access to energy for the community. Energy democracy in DANIDA's efforts to succeed is identified through three main indicators: popular sovereignty, participatory governance, and civic ownership. The ESP-3 clean energy management project in Central Java opens the community’s potential to gradually break free from bad habits in managing the environment while helping to fulfill energy availability. In addition, the ESP-3 clean energy project also provides the greatest benefit from energy activities to the community and directly involves the local community. Several aspects that will be analyzed in this paper include an explanation of the condition and potential of energy in Indonesia and Central Java. The task of DANIDA in the ESP-3 project in Central Java to its strategy that emphasizes the participation of local communities, and continued on the implications of energy projects. Net ESP-3 to society. The fact that DANIDA has succeeded in building energy democracy in Central Java is the basis for the author in developing a problem formulation. Based on this statement, the author will analyze how DANIDA has succeeded in realizing energy democracy in Central Java through the ESP-3 clean energy pilot project?

**Conceptual Framework**

Energy democracy can be interpreted as an effort to achieve justice in energy access. Energy democracy emphasizes that to achieve this access, a transition is needed in determining the energy system to be used. In a sense, energy democracy highlights the disparity with the current state of the energy system, which is dominated by the conventional sector (Fairchild & Weinrub, 2017; Szulecki, 2018). In the 2012 international labor roundtable, this transition can only be made when there is a transformation of ownership of resources, capital, and infrastructure into the hands of the community. *Energy democracy* is a framework that must be applied to address inequality of access with a decarbonized economic system that continues (Fairchild & Weinrub, 2017). Szulecki (2017), also in his writing entitled "Conceptualizing Energy Democracy," has a similar view if this energy democracy in its central concept seeks to demonstrate energy transformation and decarbonization efforts by conducting energy decentralization independently by the community/bottom-up civic.

Around the world, various parties ranging from countries, international organizations, and communities to individuals are gradually realizing that new and
renewable energy does not only reduce the negative environmental impact caused by fossil energy. Based on the writing of Jennie C. Stephens (2019), apart from reducing environmental harm, the existence of new and renewable energy also has the potential to change the surrounding environment through a more just and civilized distribution of wealth, political power, and health. In addition, many parties feel that the massive use of fossil energy today only benefits a few parties and negatively impacts the surrounding community and environment. The desire to redistribute power to society through transforming new and renewable energy is referred to as energy democracy (Burke & Stephens, 2017; Stephens, 2019). Stephens (2019) further explains that the world's energy system influences society's political, economic, institutional, and socio-cultural worlds. By changing energy systems from fossil to new and renewable energy, energy democracy provides a framework for linking energy systems to social justice and climate change.

To measure how far this democracy is achieved, energy democracy divides it into two indicators of success. First, by measuring the achievement of energy democracy through decision-making methods, which are divided into three main dimensions, namely Popular Sovereignty, which explains the extent of public participation in building energy independence. Participatory Governance explains how the government is involved in efforts to build energy democracy and Civic Ownership, which explains the amount of ownership of energy access by the community (Szulecki, 2018). Then second, the analysis of energy democracy can be measured through the energy transitions that have been successfully achieved in the process of social transformation and social activism (Stephens, 2019).

Energy democracy focuses on social transformation from changing fossil energy systems to new and renewable energy (Stephens, 2019). The potential for social transformation from this displacement can be seen in the difference between new and renewable energy and fossil energy. First, infrastructure installations for new and renewable energy can take the form of small and local installations, allowing communities to manage their own new and renewable energy facilities. This condition allows the community to be economically independent and benefit economically from energy management. Second, new and renewable energy sources, as the name suggests, are environmentally friendly and can be renewed.

In contrast to fossil energy which destroys the environment and will run out in the future. This benefits the community because the energy sources, such as sun, water, wind, and waste, have very cheap selling prices and are even free of charge. In addition, due to its renewable nature, this energy infrastructure can be managed at
a low cost for a more extended period, and does not damage the surrounding environment. Lastly, the sources for creating new and renewable energy are abundant and accessible to everyone. This means that parties who want to develop clean energy do not have to compete with other parties to get these new and renewable energy resources, in contrast to limited fossil energy sources.

This process is then continued in the energy transition to social activism. Social activism is a movement that seeks to realize the social transformation of energy democracy (Stephens, 2019). Aspects of energy activism are divided into three aspects, namely: (1) resist which seeks to fight the fossil energy system by delegitimating the fossil energy industry, reducing the influence of the fossil energy industry in politics, and stopping investment in fossil energy infrastructure which makes the world more dependent, to this energy source. These measures are intended to hold actors in the fossil energy industry to account for any damage they have done; (2) and followed by reclaiming as an effort to take back the energy infrastructure, the transfer made from the large energy industry belonging to fossil energy more evenly to the community through the development of new and renewable energy can have an effect in reducing the interests of the fossil energy industry in the political and economic sphere. Through reduced ownership, profit, and management; (3) the last is restructuring, where this effort can be carried out by changing the assumption that the energy system must be centralized to become more decentralized so more people can access that clean, environmentally friendly energy.

In this study, the author's framework is outlined in the analysis of the ESP-3 program scheme in Central Java to reduce the environmental damage caused by fossil energy through infrastructure development and clean energy management in various regions in Central Java. Although the Central Java Government may not explicitly want to achieve energy democracy, the collective effort between DANIDA and Indonesia in the ESP-3 project in Central Java is a form of energy democracy because it reduces the use of fossil fuel energy, shifts to new and renewable energy, and involves the community in its management.
METHOD

To answer the research questions, the author uses qualitative methods as a tool used to explain research problems. In this study, the author uses an empirical case as the basis for the object of research on Indonesia-Denmark renewable energy cooperation in Central Java Province. As a strategy, the author collects research data; in collecting secondary data, the author uses archival document techniques sourced from official documents/archives of the Central Java Government, books, or related print media. Then proceed to internet-based research techniques in the form of news web pages and peer-reviewed journals based on the project period, including discussions related to DANIDA, ESP-3, Central Java, and Energy Democracy. For primary data collection, the author uses interview techniques. This interview was conducted in two directions, with the targets being the Central Java Provincial Government and DANIDA ESP-3.

RESULT AND DISCUSSION

The Role of Denmark-DANIDA In Central Java

In the case of new and renewable energy, Central Java was chosen as the ESP-3 pilot project for two reasons. The first reason, based on the availability of potential and the state of the bureaucracy, Central Java became a suitable province of choice for Denmark. The second reason, based on the projection of the central government's energy mix, Central Java was chosen because it is included in one of the five reference provinces for the use of new and renewable energy (Archives of the Central Java Provincial Government, Regional Autonomy and Cooperation Bureau, 2014; Winarno et al., 2017).

DANIDA, or Danish International Development Agency, is an agency that carries a mission of cooperation and development as the implementation of Denmark's domestic policy in its commitment to overcoming poverty, promoting human rights, and helping the economy of developing countries. The formation of DANIDA was based on a legal product issued by Denmark in 1962 regarding foreign development assistance and starting in 1971, under the Danish Ministry of Foreign Affairs, DANIDA was officially established as an independent agency tasked with carrying out this mission (Ministry of Foreign Affairs of Denmark, n.d.)
On an international scale, Denmark's efforts to initiate the formation of DANIDA are also a step to reduce the impact of global warming that could threaten the country's sovereignty. The aid assistance provided by Denmark through DANIDA is generally aimed at African countries because these areas are still rarely highlighted by the international community. However, DANIDA, in carrying out its mission, also sees Asia as a potential area because Asia is a continent with a high economic rate and population (United Nations: Department of Economic and Social Affairs Population Dynamics, 2020). With the growth rate of all sectors occurring in Asia, this poses an environmental challenge for Denmark-DANIDA because this situation is increasingly endangering global climate conditions. With this situation, Asian countries dominate the production of world carbon gas emissions due to the increasing demand for energy (Ministry of Foreign Affairs of Denmark, 2007). As a follow-up to the 1992 Rio Conference on Environment and Development, Denmark-DANIDA decided to select the Southeast Asia region as the area for implementing environmental development assistance. This DANIDA strategy is then described in terms of the different time intervals of energy and environmental cooperation between Indonesia, Malaysia, and Thailand as the selected countries. DANIDA's entry into Southeast Asia is also inseparable from the involvement of the Investment Fund for Developing Countries (IFU) (Evaluation Department of the Ministry of Foreign Affairs of Denmark, 2016).

**Table 1. DANIDA Engagement Time Interval Table in Southeast Asia**

Source: Evaluation Department Ministry of Foreign Affairs of Denmark (2016)
Table 1. shows that DANIDA's involvement in Southeast Asia began in 2000, and DANIDA began to enter Indonesia in 2005. Then for its activities in Indonesia itself, DANIDA carries out a series of programs in three sectors, namely: (a) The cultural and arts development sector as an effort to increase capacity and space for proper actors to increase the closeness of relations between the two countries; (b) The environmental support program sector that supports the Indonesian government in environmental management and sustainable development which is further reduced to the Environmental Support Program and ends in the third phase (Evaluation Department Ministry of Foreign Affairs of Denmark, 2016); (c) Good governance program sector by promoting democracy in the form of promoting transparency and accountability within the bureaucracy. Based on the three sectors, the priority of Denmark-DANIDA in this mission is in the second point sector regarding alleviating environmental problems that occur in Indonesia.

The continuation of the environmental management and sustainable development sector in the third phase of the Environmental Support Program was later confirmed through a Memorandum of Understanding "Cooperation in the Field of Clean and Renewable Energy and Energy Conservation." The MoU was legitimated on October 22, 2015, by Indonesia, represented by the Minister of Energy and Mineral Resources, Sudirman Said, and Denmark, represented by the Minister of Energy, Building and Climate, Christian Lilleholt (Directorate General of Legal Affairs and the International Treaties Republic of Indonesia, 2015). The memorandum also makes it more straightforward that DANIDA's commitment will be implemented in the energy sector by placing Central Java as a pilot area through ESP-3.

Referring to the ESP-3 implementation agreement, the Ministry of National Development Planning/Bappenas, Ministry of Environment, Ministry of Energy and Mineral Resources, and Provincial SKPD are the leading partners for the ESP-3 program. Meanwhile, supporting partners are said to be agencies consisting of the Ministry of Home Affairs, Ministry of Finance, Ministry of PUPR, and Ministry of Forestry. Furthermore, at the provincial level, the leading partner is the provincial Regional Government Work Unit consisting of BAPPEDA, the Environment Agency, and the Energy and Mineral Resources Office. Then as a supporting partner, it is said to be an agency consisting of the Department of Industry and Trade, the Department of Human Settlements and Spatial Planning, SKPD in the Regency/City, the Regional Secretary, which includes the Government Bureau, Regional Autonomy, and Cooperation; Regional Development Administration Bureau; Production Development Bureau; and the Legal Bureau (Archive of the
Regional Autonomy Administration and Cooperation Bureau of Central Java Province, 2014).

In Central Java, the goal of the entire ESP-3 program is inclusive growth through environmental development and management, and with the ESP-3 program in the future, Central Java is expected to be able to mitigate and adapt to climate change. The objectives of ESP-3 are aligned with the National Medium-Term Development Plan (RPJKN) and the Climate Change and Energy Policy. From this goal, it was followed by budgeting of financial assistance of 270 million Danish Kroner (DKK) or 49 million US dollars as a source of funds for the three components of the ESP-3 program, and two of these components were allocated to Central Java (Archive of the Regional Autonomy Administration and Cooperation of Central Java Province, 2014).

This ESP-3 component is part of what is meant by the objectives of ESP-3, namely: (a) includes components of increasing local impacts from policy implementation that will be carried out with targets in the form of effective and efficient use of environmental funds as well as preparation of tangible KLHS documents in order to improve sustainable performance development; (b) includes components of support for the implementation of energy efficiency and conservation policies and new and renewable energy.

For the contributions of the parties, it is stated that ESP-3 will later contribute to providing support, namely: (a) the preparation of a Strategic Environmental Assessment (KLHS) proposal in Central Java Province, which the National Technical Committee will then use; (b) ESP-3 will also provide support for priority pilot projects; (c) ESP-3 will also deploy Provincial Coordination Unit (PCU) staff in Central Java and finally; (d) ESP-3 will recruit to be used as an international technical advisor during the five-year project period, in which this advisor will work closely with BAPPEDA Central Java Province (Arsip of the Bureau of Regional Autonomy and Cooperation of Central Java Province, 2014).

On the Central Java side, it will later contribute in the form of (a) Providing office space for Provincial Coordination Unit staff; (b) Providing supporting data that is directly related to the implementation of program activities; (c) Establishing a Provincial Steering Committee in charge of planning, implementing, reporting, and monitoring results; (d) Ensure that funding assistance by the Danish Government through DANIDA can be channel and can be used according to the work plan; (e) Ensure that the disbursed funds can be accounted for properly according to the
accountability report of the Central Java Provincial Government and the latest; (f) Provide information to ESP-3 if it is found that there are obstacles or possible disruptions to the project's progress (Archive of the Bureau of Regional Autonomy and Cooperation of Central Java Province, 2014)

**Energy Democracy in Central Java in ESP-3 Program**

*Environmental Support Program Phase-3 Implementation Process*

The key to DANIDA's strategy in implementing the implementation process in ESP-3 is the guideline for implementing work programs based on community participation. This strategy begins with a dialogue approach to 35 districts/cities across Central Java. The dialogue results are then formulated and evaluated by the steering and technical committees, producing ten new renewable energy strategic project ideas. This bottom-up process later became DANIDA's first step in implementing ESP-3 to achieve the goal of energy democracy. Then in the next strategy, DANIDA, in the decision-making process, is not only on the Danish side as the provider of foreign aid but also involves other parties, including elements of the local community. Lastly, in granting the grant, Denmark intentionally provided quite a large amount of funds; even for the pilot project class, the total cost was around 160 billion Rupiah. This strategy aims to attract local governments to be serious and committed to building environmentally friendly clean energy management in their regions (Interview with Mr. Muhammad Nurhadi, 2020).

DANIDA then carried out the cooperation that was formed within the framework of the ESP-3 program as an agency under the Danish Ministry of Foreign Affairs. In the line of cooperation at the national level, DANIDA collaborates with three Indonesian ministries: the Ministry of Environment and Forestry, the Ministry of National Development Planning/Bappenas; and the Ministry of Energy and Mineral Resources.

Apart from these main objectives, several things that underlie the implementation of the ESP-3 program are the commitments from both parties to reduce greenhouse gas emissions by up to 41% (Archive of the Bureau of Regional Autonomy and Cooperation of Central Java Province, n.d.). In addition, the national energy mix plan at 23% in 2025 will significantly help Indonesia realize these interests. The implementation of the ESP-3 project was then applied to 4 cities/districts in Central Java, including Semarang, Jepara, Cilacap, and Klaten (Ibid.). The results of the project are then detailed in the following table:
Table 2. ESP-3 Program Results in Central Java

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Value (Rp)</th>
<th>Capacity</th>
<th>User</th>
<th>Emission Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semarang</td>
<td>PLTSa</td>
<td>71 M</td>
<td>8 kW</td>
<td>PLN</td>
<td>5500</td>
</tr>
<tr>
<td>Karimunjawa</td>
<td>PLTS</td>
<td>23 M</td>
<td>283 kWp</td>
<td>645 Household</td>
<td>3200</td>
</tr>
<tr>
<td>Cilacap</td>
<td>RDF</td>
<td>81 M</td>
<td>120ton/day</td>
<td>Cement Factory</td>
<td>19000</td>
</tr>
<tr>
<td>Klaten</td>
<td>Bio Gas</td>
<td>16 M</td>
<td>135m2/day</td>
<td>650 Household</td>
<td>580</td>
</tr>
</tbody>
</table>

Energy Democracy in Central Java

In Central Java Province, the strategy implemented by DANIDA in the ESP-3 program was analyse through an energy democracy approach. The first parameter used is to measure the achievement of energy democracy through decision-making methods. The second parameter, the energy democracy analysis, can be measured through the energy transition achieved in the process of social transformation and social activism. Starting with the first parameter, according to Szulecki (2017), there are three main dimensions to measure this energy democracy, namely: (1) Popular Sovereignty; (2) Participatory Governance; and (3) Civic Ownership.

People's sovereignty in energy democracy refers to how much people participate in efforts to build energy independence. The greater the participation, the greater the success of energy democracy. Because this community involvement will lead to independence from energy management, in Central Java, a large amount of community support and participation was indicated by the minimal resistance when the ESP-3 program was implemented. Thanks to this participation, communities in four pilot areas were helped and could feel the results of the benefits.

Government participation in the parameters of energy democracy refers to how effective governance is in efforts to realize energy democracy. This participation refers to three indicators: how inclusive the government is towards the community and how it is transparent to the community and educates the public about their concern for energy issues. In the ESP-3 program, Central Java did act passively because this program was not initiated by the local government but was the result of bilateral cooperation between Indonesia and Denmark. Even so, in this case, the Central Java government also plays an essential role in bridging the cooperative
Civic ownership in the parameters of energy democracy explains the control of public ownership of energy access. The magnitude of this ownership level also affects the community’s sovereignty in securing its energy supply. For the ESP-3 program, this ownership is not a directly controlled community but owned by the local government by involving the community and third parties such as PT. Bumi Pandanaran Sejahtera and PT Holcim Indonesia Tbk in each new renewable energy technology installation project. Although the community does not own this ownership, the benefits of the ESP-3 program can still be felt directly by the community because the local government and non-community parties only play a role as supervisors. For execution, it is left to the community's wishes, as in PLTS Karimunjawa and Biogas Machine (IPAL) Klaten (Interview with Mr. Muhammad Nurhadi, 2020).

**Energy Social Democratic Transformation in Central Java**

The entry of DANIDA into Indonesia is considered capable of opening up these changes, especially in Central Java, in achieving energy democracy, which so far has not been realized. To be able to see the parameters of this success, the social-democratic transformation of energy is seen through three main points: the first assesses how the social democratic energy transformation is able to change the existing renewable energy infrastructure in Central Java, then the second assesses how the social democratic energy transformation can help Java Central in managing new renewable energy sources; and finally, the third assesses how the social democratic transformation of energy can help the people of Central Java in gaining access to energy.

Energy democracy tries to explain if the installation of new renewable energy infrastructure can be built on a local scale, allowing the community to manage new and renewable energy facilities. So that the ease of installation encourages people to be independent and able to obtain economic benefits from the energy management. In Central Java, new renewable energy infrastructure installation can be realized thanks to the ESP-3 program locally. One of the most visible impacts of this local installation is the Karimunjawa Archipelago Solar Power Plant construction project in the Jepara Regency. The results of the energy conversion in
the form of electricity ultimately help 645 families to be able to manage these energy sources independently.

Central Java province has a variety of potential new renewable energy sources. In the aspect of PLTS development, geographically, Central Java is located in an area with an irradiation intensity of 3.5 kWh - 4.67 kWh per day to allow the potential for PV mini-grid development. In other sources on potential Central Java currently has hydropower with a total capacity of 386.32 MW spread over the districts of: Cilacap, Banyumas, Purbalingga, Banjarnegara, Brebes, Tegal, Pemalang, Pekalongan, Batang, Kendal, Kebumen, Purworejo, Wonosobo, Temanggung, Magelang, Klaten, Boyolali, Karanganyar, Wonogiri, Semarang and Semarang City. In addition, Central Java also has various potentials related to Biofuels and Natural Gas (Bureau of Infrastructure and Natural Resources of Central Java Province, n.d.).

For the ESP-3 project itself, the focus of developing new and renewable energy only covers the fields of solar, waste, and vegetable energy sources. Solar energy sources are implemented in PLTS Karimunjawa. The success of ESP-3 is also due to the availability of new renewable energy sources in Central Java. Without this potential, the social-democratic transformation of energy cannot be carried out, and in the end, because of this potential, energy democracy can be achieved by Central Java through the development of a new renewable energy pilot project.

In Central Java, this access to energy is achieved thanks to the ESP-3 program. The ESP-3 program seeks to connect energy access by providing energy-producing facilities from all energy potentials that have been neglected so far. As in the city of Semarang, the overload of the Jatibarang TPA causes the city to have a land crisis, and at the same time, the electricity demand of the city of Semarang is relatively high. Therefore, PLTSa was built as a solution for the people of Semarang to get easier access to energy while simultaneously saving environmental conditions. Elsewhere, the case in the RDF Jeruk Legi TPST, Cilacap Regency, also experienced the same thing. The overload of incoming waste and the increasing energy needs have caused the Cilacap Regency Government to experience land and energy problems; therefore, the entry of DANIDA in collaboration with a third party (PT Holcim Indonesia Tbk) caused this problem to be resolved by the construction of a refused-derived fuel machine. In the Karimunjawa Islands, the difficulty of accessing this energy source is visible when the people of the area still rely on diesel as their energy source.
Energy Social Democracy Activism in Central Java

Energy democratic social activism, according to Stephens (2019), is divided into three stages: fighting the fossil energy system, taking back the energy infrastructure, and restructuring the energy system (resist, reclaim, restructure). Fighting the fossil energy system is done by delegitimizing the fossil energy industry, reducing its influence in politics, and stopping investment in fossil energy infrastructure that makes the world more dependent on these energy sources. These methods are intended to hold fossil energy actors accountable for any damage they have done. In this effort, the initiation of Denmark-Indonesia cooperation which was strengthened through the MoU on Cooperation in the Energy and Renewable Sector and Energy Conservation in 2015, was proof of Indonesia’s desire to create energy democracy for the people of Central Java. In this effort, the way to delegitimize the fossil energy industry is evident because the installation of new renewable energy technology projects will eventually make people independent in using their energy. Although in this case, the political involvement of the fossil industry and investment is not fully stop in Central Java.

Reclaim in terms is the next step that requires the movement of fossil industry actors to distribute energy reasonably evenly to the community, and this is done by starting the development of new and renewable energy. The existence of movement to urge these actors through the reduction of ownership, profit, and management is expected to reduce the power of the fossil industry in the political and economic spheres. In Central Java, the movement to take back energy infrastructure is not as visible in ESP-3 because, in this case, Central Java only followed the central government’s instructions in DANIDA’s plan to implement its foreign aid. However, with the successful development of new renewable energy and the involvement of the cement factory PT Holcim Indonesia Tbk in the refused-derived fuel project in Cilacap to decide to use waste products as a substitute for coal, this has answered how this energy infrastructure is being taken over in terms of function shifts.

Restructuring the energy system itself is a step taken by changing the assumption that the energy system that has been centralized must be decentralized so that with the decentralization of the energy system through new and renewable energy, the community will easily access energy. DANIDA has successfully realized this assumption in the energy system perspective through the ESP-3 program. The installation of new renewable energy machines in four areas in Central Java is indirectly able to decentralize this energy system to the community. Both in terms
of society and government, in the end, will change the second perception elements in utilizing their energy.

**CONCLUSIONS**

This study discusses Central Java as one of Indonesia’s provinces that ultimately can build energy democracy for its people. Denmark, as a country that is active in promoting environmentally friendly energy, has succeeded in carrying out its commitment to concern global environmental issues. The beginning of cooperation between Denmark and Indonesia began in 2005, which began with the presence of the ESP-1 program. Then, in 2013 the ESP-3 program continued in the third phase (ESP-3), where this phase emphasized three components, namely environment, energy, and forests.

The concept of energy democracy is an analytical tool to answer DANIDA’s implementation strategy in Central Java. So to measure the success of DANIDA, the first parameter is used, namely energy democracy through decision-making methods with three main dimensions: popular sovereignty, participatory governance, and civic ownership. Then in the second parameter, democracy is measured based on the energy transition process that occurs based on social transformation and social activism. Furthermore, external assistance in the ESP scheme is used as a link in achieving energy democracy in Central Java.

Popular sovereignty or people’s sovereignty in energy democracy measures how much people participate in efforts to build energy independence. In Central Java, the magnitude of this participation is indicated by the absence of resistance during the ESP-3 program. Participatory governance in a democracy is also trying to see how effective the government is in bridging the collaborative process in the ESP-3 program. In this parameter stage, the local government has an essential role because it has succeeded in its function as a facilitator. Furthermore, civic ownership tries to explain how ownership of this energy installation can affect how much energy access can be achieved.

In the second parameter, this success is measured through the transition process that occurs in social transformation and activism. Energy democratic social transformation uses three aspects to measure these changes. The first aspect, is starting with a new renewable energy infrastructure. In Central Java, new renewable energy infrastructure installation can be realized thanks to the ESP-3 program locally. Then in the second aspect, based on new and renewable energy
sources, Central Java is considered a strategic province because its natural resource potential can be maximized in the ESP-3 program.

Furthermore, in social democracy, energy activism is a parameter used to measure how much commitment the actors involved in achieving the social-democratic transformation of energy are. Energy democratic social activism emphasizes a movement of efforts to realize the social transformation of energy democracy. The measured aspects of energy democracy and social activism are divided into three stages: resist, reclaim, and restructure. In the resist aspect, this effort to delegitimize the fossil energy industry is not very visible, but thanks to the ESP-3 program, at least it can reduce the influence of the domination of the fossil energy industry, although not completely.

On the reclaimed aspect, the measure of the success of energy democracy is measured by the pressure on the fossil industry actors to distribute energy fairly and evenly to the community. For Central Java Province, the movement to take back energy infrastructure is also not so visible in ESP-3. However, with the construction of a new renewable energy machine installation, such as the involvement of the cement factory PT Holcim Indonesia Tbk in the refused-derived fuel project in Cilacap to decide to use waste products as a substitute for coal, it has answered how this energy infrastructure is taken over in terms of changing functions. Finally, on the aspect of restructuring, it is a step that seeks to change the view of energy systems that have been centralized to decentralized. DANIDA has successfully realized this assumption in the energy system perspective through the ESP-3 program. Presenting the results of four new and renewable energy installation projects spread across Central Java has answered changes in assumptions for the community and local government.
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