POST-MODERN PLANNING THEORY: THE NEW ERA OF INDONESIA ENERGY PLANNING

Syarifah Amelia¹, Pradono Pradono², Harkunti Pertiwi Rahayu³, Benedictus Kombaitan⁴

ABSTRACT

Objective: The objective of this study is to explore how decision-making procedures based on postmodern planning theories can facilitate the integration of social and environmental aspects into energy planning. This is critical in the context of global agendas such as the Sustainable Development Goals (SDGs) and the New Urban Agenda (NUA), which emphasize the provision of clean energy and equitable access to energy.

Theoretical Framework: This study is grounded in postmodern planning theories, which prioritize inclusivity, communication, and the negotiation of values among various stakeholders. These theories contrast with traditional, market-oriented energy planning approaches that often marginalize social and environmental considerations.

Method: The research employs a qualitative approach, analyzing case studies where postmodern planning principles have been applied to energy planning. This includes a review of policy documents, interviews with key stakeholders, and an examination of the interactions between government sectors and between the government and society.

Result and Discussion: The findings indicate that postmodern planning approaches can effectively bridge the gap between social/environmental goals and economic interests in energy planning. Through enhanced communication and negotiation among stakeholders, it is possible to achieve more inclusive and sustainable energy policies. The study highlights specific instances where these approaches have led to more balanced energy planning outcomes, especially in regions focused on rapid economic growth.

Research Implication: The implications of this research suggest that adopting postmodern planning principles can significantly improve the inclusivity and sustainability of energy planning processes. Policymakers are encouraged to foster greater communication and value exchange among stakeholders to balance economic, social, and environmental objectives.

Originality/Value: This study contributes to the literature by demonstrating the practical application of postmodern planning theories to energy planning. It provides a novel perspective on how to reconcile the often competing interests of economic growth and sustainable development, particularly in the energy sector.

RESUMO

Objetivo: El objetivo de este estudio es explorar cómo los procedimientos de toma de decisiones basados en teorías de planeamiento pós-moderno pueden facilitar la integración de aspectos sociales y ambientales en el planeamiento energético. Esto es crítico en el contexto de agendas globales como los Objetivos de Desarrollo Sostenible (ODS) y la Nueva Agenda Urbana (NAU), que enfatizan la provisión de energía limpia y el acceso equitativo a la energía.

Referencial Teórico: Este estudio está fundamentado en teorías de planeamiento pós-moderno, que priorizan la inclusividad, la comunicación y la negociación de valores entre varias partes interesadas. Estas teorías contrastan con abordajes tradicionales de planeamiento energético orientados al mercado, que frecuentemente marginalizan consideraciones sociales y ambientales.

Método: La investigación emplea un enfoque cualitativo, analizando estudios de casos donde principios de planeamiento pós-moderno fueron aplicados al planeamiento energético. Esto incluye revisión de documentos de políticas, entrevistas con partes interesadas clave y un examen de las interacciones entre sectores gubernamentales y entre el gobierno y la sociedad.

Resultados y Discusión: Los hallazgos indican que abordajes de planeamiento pós-moderno pueden efectivamente preencher la brecha entre objetivos sociales/ambientales e intereses económicos en el planeamiento energético. A través de la comunicación aprimorada y la negociación entre las partes interesadas, es posible alcanzar políticas energéticas más inclusivas y sostenibles. El estudio destaca instancias específicas donde estos enfoques llevaron a resultados de planeamiento energético más equilibrados, especialmente en regiones focadas en crecimiento económico rápido.

Implicaciones de la Pesquisa: Las implicaciones de esta pesquisa sugieren que la adopción de principios de planeamiento pós-moderno puede mejorar significativamente la inclusividad y la sostenibilidad en los procesos de planeamiento energético. Los formuladores de políticas son incentivados a promover una mayor comunicación y troca de valores entre las partes interesadas para equilibrar objetivos económicos, sociales y ambientales.

Originalidade/Valor: Este estudio contribuye para la literatura al demostrar la aplicación práctica de teorías de planeamiento pós-moderno al planeamiento energético. Ello ofrece una perspectiva nueva sobre cómo reconciliar los intereses frecuentemente conflitantes de crecimiento económico y desarrollo sustentable, particularmente en el setor energético.


TEORÍA DE PLANIFICACIÓN POSMODERNA: LA NUEVA ERA DE LA PLANIFICACIÓN ENERGÉTICA EN INDONESIA

RESUMEN

Objetivo: El objetivo de este estudio es explorar cómo los procedimientos de toma de decisiones basados en teorías de planificación posmodernas pueden facilitar la integración de aspectos sociales y ambientales en la planificación energética. Esto es fundamental en el contexto de agendas globales como los Objetivos de Desarrollo Sostenible (ODS) y la Nueva Agenda Urbana (NAU), que enfatizan el suministro de energía limpia y el acceso equitativo a la energía.

Marco teórico: Este estudio se basa en teorías de planificación posmodernas, que priorizan la inclusión, la comunicación y la negociación de valores entre diversas partes interesadas. Estas teorías contrastan con los enfoques tradicionales de planificación energética orientados al mercado que a menudo marginan las consideraciones sociales y ambientales.

Método: La investigación emplea un enfoque cualitativo, analizando estudios de casos donde se han aplicado principios de planificación posmoderna a la planificación energética. Esto incluye una revisión de documentos de políticas, entrevistas con partes interesadas clave y un examen de las interacciones entre los sectores gubernamentales y entre el gobierno y la sociedad.

Resultado y discusión: Los hallazgos indican que los enfoques de planificación posmodernos pueden cerrar eficazmente la brecha entre los objetivos sociales/ambientales y los intereses económicos en la planificación energética. A través de una mejor comunicación y negociación entre las partes interesadas, es posible lograr
políticas energéticas más inclusivas y sostenibles. El estudio destaca casos específicos en los que estos enfoques han llevado a resultados de planificación energética más equilibrados, especialmente en regiones centradas en un rápido crecimiento económico.

**Implicaciones de la investigación:** Las implicaciones de esta investigación sugieren que la adopción de principios de planificación posmodernos puede mejorar significativamente la inclusión y la sostenibilidad de los procesos de planificación energética. Se alienta a los formuladores de políticas a fomentar una mayor comunicación y un intercambio de valores entre las partes interesadas para equilibrar los objetivos económicos, sociales y ambientales.

**Originalidad/Valor:** Este estudio contribuye a la literatura al demostrar la aplicación práctica de las teorías de planificación posmodernas a la planificación energética. Proporciona una perspectiva novedosa sobre cómo conciliar los intereses a menudo contrapuestos del crecimiento económico y el desarrollo sostenible, particularmente en el sector energético.

**Palabra clave:** Energía Limpia, Equidad Energética, Planificación Postmoderna.

---

**1 INTRODUCTION**

Multi-scalar energy is essential for life. Discourse on energy is certainly a common thing. Nevertheless, without realizing it, when individuals and institutions talk about energy, it is often found that the concept of energy used as a frame of mind between one entity and another can be much different. In comparison, energy is understood to have specific meanings in scientific and engineering contexts, such as for a physicist; Society is believed to understand energy in much more diverse ways (Demski, Thomas, Becker, Evensen, & Pidgeon, 2019). Different groups will conceptualize energy in different ways and emphasize different values. For example, (Stern, Aronson 1984) Energy can be seen as a commercial commodity, an ecological resource, a social necessity, and a strategic material. Viviana and Castillo (2019) assert that, in reality, the concept of energy is the foundation of all human and natural interactions. Thus, the concept of energy should not be disconnected from the context of its social and ecological reality. In this viewpoint, the emphasis on understanding energy refers to the aspect of energy as "action". The concept of energy as an action related to energy services is a concept that we use every day, where what is needed by the community is the service of energy and access to these services (Fell, 2017).

In a contrasting nuance between the awareness of energy supply as a human right and enabler of development with market-oriented energy supply practices, a bridge can be made by first dissecting aspects of the planning procedure based on the analysis of planning theory. Since the Industrial Revolution's outbreak, planning theory has undergone two paradigm shifts. In the
first paradigm shift in the 1960s, traditional urban planning or design 'blueprints' transformed into systematic and rational planning to address increased urban population density, reduction of open space, inadequate housing, water shortages, sewage contamination and uncontrolled spread of disease. Furthermore, in the second change in the late 1980s, the role of planners as technical experts changed to facilitators, who sought to narrow the gap between planning theory and practice (Brooks, 2002). Interactive communication, value measurement and building understanding are key to planning in this post-modern era. The actual evolution of this planning, which is alleged in this paper, will bridge the conflict of importance in the trilemma of energy planning, which concerns three aspects: economic, social and environmental. Through communication, exchange and negotiation of values that characterize post-modern era planning, both between government institutions/sectors and between government and society (public participation), it is believed that it will be able to realize sustainable energy planning. At the end of the article, to emphasize and show the compatibility of ideas with real conditions, a case study of energy planning in Indonesia and how the influence of postmodern theory can provide a contributive perspective to improving Indonesian energy planning in the future.

2 THEORETICAL REVIEW

2.1 OPERATIONAL ENERGY PLANNING: HOW AND FOR WHOM?

2.1.1 Operational definition of energy planning

Today, energy planning is understood in terms of very broad and diverse mental concepts, from local to global communities doing energy planning. Some understand energy planning as a conceptual framework and focus on policy and regulation. Some understand that energy planning is more technically related to projected load demand and the optimization of its fulfilment (Lei Bi, 2010).

There are some criticisms of current energy planning practices. Energy planning is considered only a matter of investment decisions and emphasizes that energy planning needs to ignore the main interest only to find the cheapest alternative energy supply (Awerbuch, 2006). The operational definition of energy planning is then generalized based on the interpretations and criticisms outlined above. In general, energy planning is formulating, implementing, monitoring, and adjusting energy plans and policies based on a combined assessment of current energy consumption patterns, future energy needs, and existing energy plans and policies to
improve energy sustainability in a particular region. This process aims to develop and promote a portfolio of energy production and consumption that is cost-effective, environmentally friendly, and beneficial to each individual.

2.1.2 Energy Planning: A Historical Review and Future Projections

At the end of the 19th century, cities experienced rapid urbanization caused by the Industrial Revolution. Industrial workers and their families flocked to the city, where industry began to stand and live there. Urban problems began to emerge, such as the unavailability of water and electricity (lighting) and sanitation problems in general (Campbell & Fainstein, 1996).

In general, after the Industrial Revolution, planning theory has undergone several paradigm shifts, which should influence the perspective of energy supply (Lei Bi, 2010). Simultaneously, this paradigm shift led to a more comprehensive socio-spatial and temporal concept of thinking, inspired a comprehensive school of planning and sparked the first emergence of the term 'sustainability'. Energy planning from this era (the 90s) was urged to pay attention to ecological and social considerations in its modelling, and multi-criterion calculations were developed to estimate demand and supply (Nijkamp and Volwahsen, 1990).

Sustainable energy planning is increasingly highlighted in two main global development goals, namely the Sustainable Development Goals (2015) and the New Urban Agenda (2016). The New Urban Agenda, a global commitment ratified by 140 countries, agreed to provide equal access to energy for every member of society. At the individual level, the state provides energy access by the state as a manifestation of its obligation to protect its citizens' human rights. At the societal level, access to energy plays a crucial role in realizing a modern and sustainable society (Asif & Muneer, 2007). development is closely related to the ability to utilize services enabled by access to energy, whether for mobilization, domestic, agricultural, or industrial-commercial needs. Second, the energy provided must be oriented as an enabler of development. Sustainability has three economic, environmental, and social dimensions that must always be considered in every development plan, including future energy planning.
2.1.3 Demands for Sustainable Energy Provision

The discussion of sustainable energy generally concerns three issues: energy security, the operational impact of energy systems on the environment, and equal access to energy services.

2.2 EVOLUTION PLANNING THEORY

2.2.1 The Main Traditions of Planning Theory

Planning was initially only seen as applying physical design to residential environments (Friedman, 1987; Taylor, 1998). The orientation at that time was urban planning, which included making a master plan by showing the suitability of spatial configurations of land use and the city's shape produced by architects/engineers when designing buildings and built environments. After the Industrial Revolution and the Second World War, around the 60s, planning was seen more as an application of art to physical design. At this time, the dominant spatial approach is orthogonal design, which is the design of space configurations consisting of square blocks with straight streets intersecting in perpendicular corners that form a grid pattern commonly referred to as 'grid patterns' or 'gridiron'. The first major change occurred in the '60s, which Taylor (1998) called the change from a morphological conception of space to a sociological conception of space.

The paradigm shift in the modern era boils down to the application of rationality and a systems approach in planning a better life for society. This planning model with the level of modernization epistemology, by Sandercock (1998) is called the Heroic Model, where this planning model is built with five pillars: (1) Rational; (2) comprehensive; (3) Scientific method;
(4) Confidence in the future directed by the State; and (5) Confidence in the planner's ability to know what is best for the public. In this modernization era, the developed planning models were Rational Comprehensive Planning (RCP), Disjointed Incremental Planning, and Mix Scanning.

There has been a shift from instrumental to communicative rationality, which Healey (1987) calls a communicative turn in planning. This paradigm shift marks the post-modern era of planning theory, where the homogeneous sociological conception of space shifted to a heterogeneous sociological conception of space (Masik, 2005). Sandercock (1998) sees this shift; planning is no longer seen exclusively as a concern for coordinating actions in an integrated and comprehensive manner but rather as a process of negotiation, politics, and focused planning. Planning is no longer fully controlled by the state, but community-based planning has begun to grow, and planners act as enablers and facilitators with assistance from the private sector by harnessing the balanced goodness of market forces. Finally, planning is no longer seen as operating in the public interest formulated by planners with the assumption of making the public a homogeneous entity; instead, planning is expected to maintain the heterogeneous nature of the public. Therefore, planning models in the postmodern era have developed that emphasize the need for a process of dialogue (communication), participation, collaboration, and consensus creation. Friedman in Sandercock (1998) emphasizes the need for a mutual learning process to bridge theoretical knowledge from planners with practical knowledge from the community through a planning model called transactive planning.

In the post-modern era, energy planning must pay more attention to individual interests and be more humanist, as stated in the SDGs and NUA. Public perspective, acceptance, and participation are the biggest challenges of energy planning in order to realize sustainable energy planning. In line with the theory of transactive and collaborative planning in the post-modern era, sustainable energy planning places great importance on communication between planners and urban communities. Two-way planning activities, information exchange and equalization of perspectives between planners and urban communities have the potential to realize sustainable energy provision. As explained at the beginning of the article, an equal understanding of the importance of sustainability principles can encourage urban communities as energy users to save energy and want to use renewable resources. The evolution of procedural theory in planning accompanied by the era and characteristics of sustainable planning and energy planning are as illustrated in Figure (2):
2.2.2 Major streams of post-modern planning

In the first paradigm shift in the 1960s, traditional urban planning or design 'blueprints' transformed into systematic and rational planning to address increased urban population density, reduction of open space, inadequate housing, water shortages, sewage contamination and uncontrolled spread of disease. Furthermore, in the second change in the late 1980s, the role of planners as technical experts changed to facilitators, who sought to narrow the gap between planning theory and practice (Brooks, 2002). Interactive communication, value measurement and building understanding are key to planning in this post-modern era.

3 METHOD

The research method used in this study was literature. Literature studies are related to theoretical studies, and several references related to scientific literature (Sugiyono, 2012). In this study, data sources were obtained from relevant literature such as books, journals or scientific articles related to the selected research topic's problem and objectives. Research with literature studies is research in that the preparation is the same as other research, but the sources and methods of data collection by taking data in the library, reading, recording, and processing research materials.
4 RESULTS AND DISCUSSIONS

4.1 INTEGRATION OF POST-MODERN PLANNING THEORY INTO THE ORGANIZING OF ENERGY PLANNING

Looking at the current energy planning operations, juxtaposed with the paradigm shift of planning theory, there is an impression that energy planning has stagnated when, in practice, energy plans tend to be market-oriented, spatially disconnected, and remain largely dependent on fossil energy. (Bi, 2011) despite the evolution of planning theory, some energy researchers/planners still focus on the effectiveness of energy planning only (business as usual, BAU). To escape this stigma requires extraordinary determination, especially by governments, such as those implemented by Germany, with all the challenges and complexities of its energy transition. However, in global south countries, the stigma of BAU energy planning is still attached, and it is not easy to make the energy transition (Castán Broto, Baptista, Kirshner, Smith, & Neves Alves, 2018).

Figure 3
The stigma of energy planning today (business as usual)

Source: Prepared by Authors (2024)

On the other hand, post-modern planning theory comes with characteristics where planners must represent affected groups, connect intergovernmental and government-public, and establish interactive communication between institutions (Chilvers, Longhurst, Chilvers, & Longhurst, 2016). This characteristic will build a corridor that breaks through the stagnation of energy sector planning. It is currently almost completely controlled by a homogeneous group that tends to be technocratic, market-oriented, and generally a government institution with full authority in the administration of the energy system. This typical group of energy planners is
vulnerable to criticism from government and non-government agencies regarding negative externalities to the environment and social energy injustice (Heffron, McCauley, & Sovacool, 2015). With communication and negotiation between government planners in the energy sector, planners in the environmental sector and building planners in general, energy planning is expected to be more accommodating to environmental and social problems.

Another significant characteristic of postmodern theory is the emphasis on public participation. Postmodern theory allows a new direction in energy planning, namely 'Energy Democracy' (Chilvers, 2018). Centralized energy systems, well developed in industrialized countries during the 20th century as products since the Industrial Revolution, left little room for the public's role as passive consumers (Walker and Cass, 2007). However, the status quo of energy planning is beginning to be urged to shift through massive corrections over the past two decades from the environmental and social sectors. The implication is the demand to involve the public in transforming energy control and production, including neo-liberalization of energy markets, decentralization of energy, and increased production of renewable and renewable energy (Devine-Wright, 2007). In addition, the terms 'energy trilemma', 'energy sustainability', 'energy justice', and 'energy inequality' emerged at the height of the energy crisis at the beginning of the 21st century, which simultaneously constructed a wider space for participation for the public in determining their contribution to the energy transition arena. Public awareness and movement are determining factors in the success or failure of the energy transition in the future, in such a way that the public must be actively involved from the beginning of the phase of future energy planning. By taking public participation into account, hence the physical boundaries of the energy planning are considered as a sociological heterogenous space. The regional resources are integrated into the planning processes, making the energy system more inclusive and sustainable.
The idea of public participation today sticks out in a very wide spectrum. On the one hand, the concept of energy democracy appears in many social movements and radical currents that are neo-Marxist in color (Kunze & Becker, 2014). The ideas mostly relate to empowerment from the bottom up and the operation and ownership of community-based energy provision (Boucher, 2015). At the other extreme, more 'subtle' approaches from the fields of science and technology (STS), geography, and allied disciplines have attempted to explain how different forms of energy democracy involve actors who have been actively involved in shaping the profile of energy use and supply to make it possible to engage in cooperative dialogue/deliberation, for example regarding conservation/saving of energy and resources (van Veelen & van der Horst, 2018).

Whatever it is, participatory processes have proven vital for renewable energy implementation. The importance of involving communities in energy planning and decision-making has been a huge area of development in research over recent years, particularly under the paradigm of public conceptualization (local acceptance) of renewable energy (e.g. Albuquerque, Brannstrom, Vinicius, Morais, &; Caldeira-pires, 2019; Butler, Demski, Parkhill, Pidgeon, &; Spence, 2015; Demski et al., 2019; Hinker et al., 2017; Roddis, Carver, Dallimer, Norman, & Ziv, 2018). (Wolsink, 2007) suggests that collaborative planning approaches can be used to build institutional capital, i.e. related knowledge or relational resources, and capacity for mobilization to facilitate the development of appropriate renewable energy systems. It can be assumed that successful energy planning depends largely on citizen acceptance and a positive relationship with the number of citizens participating in the planning process. In another example, the public can also contribute to communal planning within the
scope of urban land use planning. In many European countries, public participation can occur with varying degrees of involvement (e.g., Information, consultation, cooperation, and participation) and intends to ensure that all interests considered are considered and that participants can identify themselves with the resulting action (Mackrodt, 2014). However, public involvement in the formal planning process is often somewhat limited. Generally, the process of public participation involves a two-step method: first, information is provided to the public, and the second step, the public is then allowed to express personal opinions or contribute additional knowledge to the planning process (Pahl-Weber & Henckel, 2008). This participation model's weakness lies in the lack of actual discussion, exchange, dialogue, or learning space (Rehberg & Hoffmann, 2014). Another criticism stems from the assumption that participation in communal planning topics is still a "niche topic," attracting only a small percentage of the general public.

In the context of climate change adaptation, deeper knowledge and understanding of community participation and related material content regarding the future challenges of climate change at the community level are needed. On the one hand, this bottom-up approach strengthens governance and freedom of choice and is considered the most successful strategy in building climate change adaptation and mitigation capabilities. On the other hand, the delegation of planning responsibilities to the local scale can result in "policy settings that are largely incoherent, fragmented and unstable" (González, Daly, & Gleeson, 2016) considering that finally, the local-scale planning authority is required to integrate social, economic, and ecological planning aspects into planning at a broader level considering the scope of the affected space is global.

Finally, to produce 'good' energy policies based on postmodern planning theory, important public participation is considered one of the foundations of future energy governance. The public should have a role in the legitimacy of energy policy and thus increase social acceptance of future energy planning. Even before all these processes are carried out, like opening a Pandora's box, the fundamentally difficult question of who should be referred to as 'public', for what purpose and following which method (Duvic-Paoli, 2019). However, public participation in future energy planning is essential, regardless of its form. To quote the public participation figure, Arnstein: The idea of citizen participation is a little like eating spinach: no one is against it in principle because it is good for you. (Arnstein 1969, p. 216).
4.2 STUDY CASE: ENCOURAGING PUBLIC PARTICIPATION IN INDONESIA'S ELECTRICAL ENERGY PLANNING

As the essence of post-modern planning thinking that prioritizes public participation, this section will discuss a little about the practice of providing electrical energy in Indonesia and the loopholes to promote public participation in the mechanism.

4.2.1 Indonesia's Electricity Planning Policy at a Glance

Within the framework of current laws and regulations in Indonesia, the provision of electrical energy follows the rules stipulated by Law No. 30 of 2009 concerning Electricity. In this Law, two new planning documents must be used as a reference in implementing energy supply, including electrical energy, namely the National Energy Policy (KEN) and the National Energy General Plan (RUEN). Previously, the electricity supply business was carried out based on Law No. 15 of 1985 concerning Electricity. Its implementing regulations mandated that the electricity supply business plan was only based on the documents of the General Plan of Electricity (RUK) and the Electricity Supply Business Plan (RUPTL) prepared by Power of Attorney for Electricity and in this case, the State gave the power to State-Owned Enterprises (i.e. State Electricity Companies) to carry out business provision of electric power for public use. However, besides PLN, cooperative business entities, private companies, SOEs, and other institutions can also apply for an integrated electricity supply business. The implication is that as of 2014, there are at least 15 companies other than PT. PLN (Persero) has an integrated IUPTL. Therefore, at least 16 RUPTLs should exist and apply in Indonesia. In more detail, based on Law 30 of 2007 on Energy, two energy-related planning policies need to be established, as follows: (1) KEN: a policy containing the country's availability for national needs, energy development priorities, utilization of national energy resources, and national energy buffer reserves. KEN is a policy prepared and formulated by the National Energy Council and determined by the Government with the approval of the House of Representatives as a Government Regulation. Currently, KEN has been stipulated in PP No. 79 of 2014; (2) RUEN: the policy of the Central Government regarding the national level energy management plan, which is a description and implementation plan of the National Energy Policy that is cross-sectoral to achieve the objectives of the National Energy Policy. This policy covers the direction of national energy policy until 2050. RUEN is a policy prepared by the Central Government and set by the National Energy Council. Currently, RUEN has been stipulated in Presidential
Regulation No. 22 of 2017. The regulation also mandates that the general energy plan be established nationally and per province as a Regional Energy General Plan (RUED-P). This RUED-P is a document describing and implementing plans for RUEN that are zero across sectors.

In addition to these two documents, according to Law No. 30 of 2009 concerning Electricity and PP No. 14 of 2012 concerning Electricity Supply Business, it is explained that the business planning of providing electricity for public interest needs to be based on: (1) RUK: Basically, this General Plan of Electricity is a plan for developing an electric power supply system that includes the fields of generation, transmission, and distribution of electric power needed to meet the needs of electric power. It has been valid for 20 years. Based on Law No. 30 of 2009, the General Plan of Electricity is divided into the General Plan of National Electricity (RUKN) and the General Plan of Regional Electricity (RUKD), which the Minister and Governor must determine following their authority. (2) RUPTL: This is a plan for developing electric power and the investment needed. This plan is valid for 10 (ten) years and can be reviewed annually. Applicants for an Electricity Supply Business License who want to apply for an integrated distribution, sales, or electricity supply business must prepare a RUPTL. The Minister or Governor then ratifies this RUPTL per the authority to issue Electricity Supply Business Licenses.

4.2.2 Post-modern planning implementation: encouraging public participation in Indonesia's electricity planning

On Indonesia's current planning practices, there are several criticisms: 1) RUPTL as the Company's Work Plan. Government Regulation No. 10 of 1989 explains that the essence of RUPTL is the Company's Work Plan. Due to the determination of RUPTL as the company's work plan, the decision-making process related to the plan in the RUPTL before the RUPTL was passed did not yet require a mechanism of transparency and public participation. 2) The Non-Differentiated Treatment of RUPTL PT. PLN (Persero) with other RUPTLs. As explained earlier, there are at least 15 business entities other than PT. PLN (Persero), which is obliged to prepare the RUPTL. The problem is that the regulations related to drafting, evaluating, and ratifying RUPTL, as contained in PP No. 14 of 2012, do not distinguish the treatment of RUPTL owned by PT. PLN (Persero) is a BUMN with RUPTL owned by other business entities. The distinction can at least be made, one of which is in the accountability mechanism, as an implication of the form of RUPTL PT. PLN (Persero), a planning document with a public law
dimension, should be PT. PLN (Persero) has an accountability mechanism for carrying out these responsibilities. The accountability mechanism can include providing information to the public regarding considerations in issuing decisions and providing supporting documents in every existing policy, involving public participation in the policy-making process, and having channels for channeling aspirations and objections.

On the other hand, although it has been mandated by Law Number 30 of 2007 concerning Energy that regional energy planning is handed over to regions according to their authority by taking into account the character and conditions of each region, it cannot be denied, field practices related to electricity planning are still dominated by the centralized authority of PLN as the only distributor of electrical energy. Not infrequently, RUED (Regional Energy General Plan) and RUKD (Regional Electricity General Plan) documents prepared by the Regional Government are not in line with the RUPTL prepared by PLN, mostly because the economic interest which has been the most significant consideration for PLN as an enterprise body was not match with the other social, environmental or even the optimistic “too good to be true” assumption in regional government energy planning. Thus, resulted both vertical and horizontal disputes between energy stakeholders. Another major problem is that the planning documents are technocratic and very secretive. KEN and RUEN have shown considerable progress in opening up public spaces, but mechanisms for considering input have not yet emerged in public review. RUPTL, which has the greatest direct impact, is still considered a company work plan document so that it is only known to the public when stipulated in the ESDM Decree (Quina, 2019a). This layered conflict of interest is a major challenge in finding loopholes to encourage public participation, which is one of the main factors in realizing sustainable energy planning for Indonesia.

5 CONCLUSION

The emphasis on using post-modern planning procedures in energy supply discourse has strategic potential to mitigate the dominance of economic interests in energy planning and accommodate environmental and social interests. It is especially possible by the presence of demands: 1) Cross-sectoral collaboration: To establish communication and negotiation between government planners in the energy sector, with planners in the environmental sector and development planners in general, as is characteristic of post-modern flow planning. With communication between institutions interested in energy, energy planning is expected to be more accommodating to environmental and social problems. 2) The importance of public
participation: Post-modern planning theory has the characteristic that planners must represent the affected group, link the government and the public, and establish interactive communication between institutions (Chilvers et al., 2016). Moreover, the terms 'energy trilemma', 'energy sustainability', 'energy justice', and 'energy inequality' further drive the urgency of public involvement in energy planning, and these are only well accommodated in postmodern planning procedures. Public awareness and movement are determining factors in the success or failure of the energy transition in the future, in such a way that the public must be actively involved from the beginning of the phase of future energy planning. 3) In the case of Indonesia's energy planning, public planning is still not taken into account. Although the national trade document has given a positive signal to involve the public in preparing the KEN and RUEN, the mechanism for considering input has not yet emerged in the public review. The RUKN, whose public oversight function is assigned to the DPR, has stagnated since 2008. RUPTL, which has the greatest direct impact, is still considered a company work plan document so that it is only known to the public when stipulated in the ESDM Decree (Quina, 2019a). This must receive serious attention if Indonesia remains determined to succeed in achieving sustainable energy provision and short-term targets for the transition to clean energy.

REFERENCES


