

Criminal Liability Of The Electricity Sector For Damage To Forest Ecosystems In National Strategic Projects

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Abstract

National Strategic Projects (NSPs) in the electricity sector play an important role in supporting national energy needs and economic growth. However, the implementation of these projects frequently causes damage to forest ecosystems, resulting in environmental degradation and disruption of forest ecological functions. This study aims to analyze the forms of criminal liability in the electricity sector for forest ecosystem damage arising from the implementation of NSPs. The research employs a normative juridical method using statutory and conceptual approaches. The findings indicate that criminal liability may be imposed on both corporations and individuals through the application of the principles of strict liability and vicarious liability, particularly in cases involving violations of environmental and forestry regulations. Criminal law enforcement still faces several obstacles, including regulatory disharmony, difficulties in proving causality, and the justification of actions in the name of national development. Therefore, regulatory harmonization and stronger law enforcement oriented toward sustainable development principles are necessary to ensure effective protection of forest ecosystems.

Keywords: *Criminal Liability, Electricity Sector, Forest Ecosystem Damage, National Strategic Projects, Sustainable Development.*

INTRODUCTION

The development of the electricity sector is a key pillar in supporting national economic growth, particularly through the implementation of National Strategic Projects (PSN) established by the government. These projects generally involve the construction of large-scale infrastructure such as hydroelectric power plants, transmission networks, and other energy facilities, which are often located in areas adjacent to or even within forest regions. (Aminuddin Ilmar, 2020). In this context, forests as ecosystems with ecological, social, and economic functions often face pressure due to land conversion, deforestation, and environmental degradation. (Hariadi Kartodihardjo, 2019). These conditions raise serious concerns regarding environmental sustainability and the protection of forest ecosystems (Ahmad Erani Yustika, 2021).

From this perspective, criminal liability in the electricity sector for damage to forest ecosystems in National Strategic Projects (PSN) actually has a sufficiently strong normative foundation. Indonesia's legal framework explicitly requires all business activities, including the development of electricity infrastructure, to uphold the principles of environmental protection and management. Provisions in Law No. 30 of 2009 on Electricity affirm that the provision of electricity must take into account aspects of sustainability and environmental conservation. (M. Zulfa Aulia, 2019). This is reinforced by the environmental legal framework set forth in Law No. 32 of 2009, which stipulates that any individual or business entity that commits an act resulting in environmental pollution and/or damage may be held criminally liable (Erwin Susanto, 2019).

In addition, in the context of forestry, Law No. 41 of 1999 sets clear limits on the use of forest areas, particularly protected forests and conservation areas (Hariadi Kartodihardjo, 2017). Every development activity, including electricity projects under the National Strategic Project (PSN), must obtain valid permits, such as a forest area use permit (IPPKH), and comply with the Environmental Impact Analysis (AMDAL) requirements. Failure to meet these obligations not

only has administrative implications but may also result in criminal penalties. In this context, the doctrine of corporate criminal liability becomes relevant, whereby the corporation, as the primary actor in business activities, can be held liable, including its directors or those who issue orders. In fact, under certain circumstances, the principle of strict liability allows for legal enforcement without the need to prove fault, particularly in cases of serious environmental damage (Barda Nawawi Arief, 2014).

However, empirical evidence reveals a gap between legal norms and their implementation in PSN electricity projects, which often lead to deforestation, forest degradation, and habitat fragmentation due to land clearing and the construction of energy infrastructure. Environmental instruments such as the IPPKH and AMDAL are often merely a formality without effective oversight, while law enforcement tends to be administrative in nature and has not yet fully addressed criminal penalties. This situation confirms that the main problem lies in the weak implementation and enforcement of the law, not in the absence of regulations. (Hariadi Kartodihardjo, 2017).

Furthermore, criminal law enforcement against perpetrators of environmental damage in this sector remains relatively weak. The government's predominant approach tends to be administrative in nature, such as imposing sanctions in the form of warnings or administrative fines, while criminal law enforcement is rarely carried out. This is exacerbated by a tendency to use PSN status as a justification for accelerating development, often at the expense of environmental safeguards. In practice, EIA documents are often treated as a mere formality, without adequate oversight of their implementation on the ground (Aritta Suwarno, 2015).

On the other hand, there are also challenges in establishing criminal liability, particularly in establishing a causal link between project activities and the resulting damage to the forest ecosystem. The complexity of corporate structures and the use of subcontracting arrangements often make it difficult for law enforcement officials to determine which party is liable. As a result, even though environmental damage is clearly evident, corporate criminal accountability does not function effectively (Rachmad Safa'at, 2013).

On the other hand, there are also challenges in establishing criminal liability, particularly in establishing a causal link between project activities and the resulting damage to the forest ecosystem. The complexity of corporate structures and the use of subcontracting arrangements often make it difficult for law enforcement officials to determine which party is liable. As a result, even though environmental damage is clearly evident, corporate criminal accountability is not effectively enforced.

This disparity indicates that the main issue lies not in the absence of legal norms, but rather in weak law enforcement and a lack of integration between economic development policies and environmental protection. Therefore, it is necessary to strengthen mechanisms for corporate criminal liability, consistently apply the principle of strict liability, and enhance oversight of the implementation of electricity projects under the National Strategic Projects (PSN) to ensure that they do not compromise the sustainability of forest ecosystems.

Law enforcement regarding forest ecosystem damage in the electricity sector within National Strategic Projects must prioritize criminal law as the primary instrument, rather than merely as a supplement to administrative sanctions. Findings indicate that the dominance of administrative approaches weakens the deterrent effect and creates opportunities for violations; therefore, it is necessary to strengthen criminal liability, including for corporations. Sanctions applied include imprisonment, fines, and additional penalties such as environmental restoration, revocation of permits, forfeiture of profits, and ecosystem rehabilitation. Furthermore, Environmental Impact Assessments (EIA) must be implemented substantively with strict oversight, supported by interagency coordination and public participation, to ensure that development remains aligned with environmental sustainability.

The development of the electricity sector under the National Strategic Projects (PSN) framework is an integral part of the government's policy to achieve energy independence. However, in practice, the development of electricity infrastructure such as power plants, transmission lines, and substations often results in damage to forest ecosystems (M. Zulfa Aulia, 2019).

Damage to forest ecosystems caused by the electricity sector's activities in national strategic projects not only results in ecological impacts such as biodiversity loss, disruption of the hydrological cycle, and increased carbon emissions, but also has legal implications. From an environmental law perspective, any business activity that causes significant environmental impacts must adhere to the precautionary principle, the principle of strict liability, and the polluter-pays principle. However, in practice, the implementation of these principles still faces challenges, particularly regarding the enforcement of criminal law against corporations in the electricity sector involved in forest destruction.

The main issue in this context is the limited application of corporate criminal liability against business entities in the electricity sector that cause damage to forest ecosystems during the implementation of national strategic projects. Although regulations such as the Law on Environmental Protection and Management have provided a legal basis for corporate criminal liability, proving it in concrete cases still faces various obstacles, whether regarding the proof of causality, the identification of perpetrators, or the complexity of corporate structures. Furthermore, there is a tendency for development interests to be prioritized over environmental protection, thereby creating the potential for weak enforcement of environmental laws.

The cases related to the electricity sector's legal liability for damage to forest ecosystems in national strategic projects are as follows:

First Case: In the 500 kV Paiton Watudodol SUTET Strategic National Project (PSN) by PT PLN (Persero), which crosses Baluran National Park, the clearing of a right-of-way (ROW) and the installation of 49 transmission towers resulted in the clearing of vegetation and the fragmentation of conservation forest habitats. The impact is a disruption of the area's ecological functions, even though the project has PSN status and holds the necessary permits. Legally, this situation violates Article 50(3) of Law No. 41 of 1999 (prohibition on the destruction of forest areas), Article 69(1)(a) of Law No. 32 of 2009 (prohibition on environmental destruction), as well as Articles 87–88 of Law No. 32 of 2009 regarding liability and strict liability.

In the second case, the Ministry of Environment and Forestry (KLHK) sued several corporations for environmental damage caused by forest and land fires that were proven to have caused widespread destruction to the ecosystem. Based on scientific verification, the court found the corporations liable and ordered them to pay Rp721 billion in damages and fulfill environmental restoration obligations. This case demonstrates a violation of the obligation to preserve the environment based on the "polluter pays" principle and strict liability.

Third Case: In the Upper Cisokan Pumped Storage Hydropower Plant (UCPS) Project in West Java by PT PLN (Persero), land clearing and construction activities in protected forest and watershed areas caused deforestation, erosion, sedimentation, and disruption of ecosystem functions. Although the project had environmental permits and strategic project status, the environmental damage indicated violations of Article 50(3) of Law No. 41 of 1999 and Article 69(1)(a) of Law No. 32 of 2009. Under Articles 87–88 of Law No. 32 of 2009, the corporation may also be held liable based on the principles of liability and strict liability for environmental destruction resulting from electricity infrastructure development.

Based on this background, this study aims to analyze the forms of criminal liability of the electricity sector for damage to forest ecosystems in the implementation of national strategic projects, as well as to examine the effectiveness of available legal instruments in enforcing corporate accountability in the environmental sector. Furthermore, this study also aims to identify legal obstacles in the application of corporate criminal liability and to provide normative

recommendations to strengthen legal protection for forest ecosystems in the development of the electricity sector. Thus, it is hoped that this study can provide theoretical and practical contributions to the development of environmental criminal law in Indonesia.

Such damage not only leads to the loss of biodiversity but also gives rise to potential environmental crimes. This raises questions about the form of criminal liability for businesses in the electricity sector in the context of the PSN

RESEARCH METHODS

The research method used in this study is normative legal research, which examines law as a system of norms, principles, and doctrines rather than empirical facts. According to Soerjono Soekanto and Sri Mamudji, normative legal research focuses on legal norms found in legislation, court decisions, and legal doctrines through library research. (Soerjono Soekanto & Sri Mamudji, 2015) This study uses a library research (documentary) approach with statutory, conceptual, analytical, and theoretical approaches to analyze relevant legal materials. The legal materials consist of primary, secondary, and tertiary sources obtained through documentary study. Data analysis is conducted using qualitative methods, with a deductive approach as the main method of reasoning, supported by inductive reasoning to strengthen the analysis (Peter Mahmud Marzuki, 2017)

RESULTS AND DISCUSSION

Results

A. What is the criminal liability in the electricity sector for damage to forest ecosystems caused by the construction of National Strategic Projects

Criminal liability in the electricity sector for damage to forest ecosystems resulting from the development of National Strategic Projects (PSN) is essentially an implementation of the principle of criminal liability for environmental harm, which is not limited to individual perpetrators, But can also be imposed on corporations as subjects of criminal law (Muhammad Akib, 2014). In the context of electricity infrastructure development such as power plants, transmission lines, and hydroelectric dams which often overlap with forested areas, the potential for ecological damage is a critical issue that must be addressed through legal accountability (Takdir Rahmadi, 2018).

1. The Basis for Criminal Liability for Environmental Offenses

Criminal liability in cases of forest ecosystem damage in the electricity sector is, in principle, not only imposed on the individual perpetrators but may also be imposed on corporations as subjects of criminal law (Eddy O.S. Hiariej, 2020)

Under environmental criminal law doctrine, corporations are regarded as entities capable of engaging in legal acts and are held accountable for the impacts of their business activities, including those related to infrastructure development projects such as National Strategic Projects (PSN) (Evi Djuniarti, 2021).

Criminal liability may be imposed on:

a. Corporations (business entities that implement electricity projects)

Corporations can be held liable if their business activities cause environmental damage, including deforestation, degradation of forest ecosystems, or pollution resulting from the construction of power plants and power grids (Kukuh Dwi Kurniawan dan Dwi Ratna Indri Hapsari, 2022).

Company executives or those responsible for policy-making may be held accountable if it is proven that they played a role in decisions that led to environmental violations (Nuzul Qur'aini Mardiya, 2018).

b. The party issuing the order or policy

Any party that, directly or indirectly, issues instructions resulting in environmental damage may be held criminally liable under the principle of involvement in corporate criminal offenses. (Kukuh Dwi Kurniawan dan Dwi Ratna Indri Hapsari, 2022)

In modern environmental law, such liability is based on the principles of limited strict liability and vicarious liability, meaning liability without the need to prove individual fault (*mens rea*) in each technical act, provided that a causal link between the corporation's activities and the environmental damage is established (Diah Ayu Rachma dan Aditya Mochamad Triwibowo, 2023).

The implementation of this principle aims to strengthen environmental protection, particularly in strategic sectors such as energy and electricity, which pose a high risk of damage to forest ecosystems (Siti Sundari Rangkuti, 2021).

2. Criminal Elements in Forest Ecosystem Damage

Based on an analysis of environmental law in Indonesia, criminal liability for damage to forest ecosystems in the electricity sector, particularly in National Strategic Projects (PSN), is determined by the fulfillment of the elements of an environmental crime. These elements include acts that cause environmental damage or pollution, whether through unauthorized deforestation or development activities that disrupt the balance of the ecosystem. In this context, proof does not always require the presence of fault (*mens rea*), as under certain conditions the principle of strict liability is applied as a form of legal protection for the environment (Ridho Kurniawan & Siti Nurul Intan Sari, 2014).

Furthermore, such acts are generally committed in the context of business activities or development projects that are administratively legitimate but deviate from environmental regulations in their implementation. This indicates that the legal status of a project including its designation as part of the National Strategic Project (PSN) does not preclude criminal liability in the event of violations of environmental protection standards (Dwi Ayu Rachma dan Agung Maulana Triwibowo, 2023).

In addition, the findings indicate that a common violation is a discrepancy between the implementation of activities and the Environmental Impact Analysis (EIA) document or the approved environmental permit. Such deviations may include conducting activities outside the permitted area, neglecting environmental management obligations, or submitting inaccurate EIA data. This non-compliance is a strong indicator of legal violations that could potentially result in criminal liability (Nola Elfi Tumangger, et.al., 2023).

Another element is the occurrence of serious impacts on forest ecosystems, such as deforestation, habitat destruction, and disruption of forest ecological functions. Evidence supporting this element is typically based on scientific studies, environmental audits, and expert testimony demonstrating significant and ongoing damage (I Gusti Ayu Ketut Rachmi Handayani, 2019).

Thus, although National Strategic Projects receive various concessions regarding permits, this does not eliminate the legal obligation to preserve the environment. PSN status cannot be used as a justification for environmental damage; rather, it requires a higher standard of care in the implementation of all development activities (Suparjo Sujadi, 2018).

3. Models of Corporate Criminal Liability and Their Legal Basis

From the perspective of environmental criminal law, acts that can be classified as criminal offenses in the electricity sector include: (I Gusti Ayu Ketut Rachmi Handayani, 2019).

- a. Clearing of forest areas without a forest area use permit (PPKH);
- b. Deviations in the implementation of activities from the Environmental Impact Analysis (EIA) document;

- c. Failure to apply the precautionary principle;
- d. Actions that result in deforestation, habitat fragmentation, and disruption of forest ecological functions.

Discussion

The framework for corporate criminal liability in cases of criminal damage to forest ecosystems in the electricity sector is set forth in Articles 116 through 119 of Law No. 32 of 2009 on Environmental Protection and Management, which allows for criminal penalties to be imposed on corporations and/or their officers who order or direct the commission of such crimes. Additionally, Article 20 of Law No. 1 of 2023 on the Criminal Code serves as the basis for the criminal liability of individuals involved in such offenses. The Model of Corporate Criminal Liability and its Legal Basis are comprehensively outlined.

1) Corporate Accountability

Criminal liability for corporations in cases of forest ecosystem damage in the electricity sector is based on the following provisions. Pursuant to Article 116(1)(a) and (b) of Law No. 32 of 2009 on Environmental Protection and Management, it is stipulated that:

- (1) If an environmental crime is committed by, for, or on behalf of a business entity, criminal charges and penalties shall be imposed on:
 - a. the business entity; and/or
 - b. the person who ordered the commission of the crime or the person who acted as the leader of the activities involved in the crime.

Pursuant to Article 116 (1)(a) and (b) of Law No. 32 of 2009 on Environmental Protection and Management, criminal liability for damage to forest ecosystems in electricity projects may be imposed on corporations and the parties who ordered or directed such activities. This provision affirms that corporations are subjects of criminal law if environmental damage occurs in the course of business activities that benefit the company, meaning that the status of a National Strategic Project (PSN) does not eliminate criminal liability for environmental damage.

Pursuant to Article 117 of Law No. 32 of 2009 on Environmental Protection and Management, the following applies:

If criminal charges are brought against the person who gave the order or the leader of the criminal act as referred to in Article 116 (1) (b), the penalty of imprisonment and a fine shall be increased by one-third.

Article 117 of Law No. 32 of 2009 stipulates that corporate officers or those issuing orders within a corporation may face criminal penalties increased by one-third if an environmental crime is committed under their orders or leadership. In the context of national strategic projects in the electricity sector, this provision indicates that criminal liability is not only imposed on the corporation but also on company leaders who cause damage to forest ecosystems.

Pursuant to Article 118 of Law No. 32 of 2009 on Environmental Protection and Management, it is stipulated that:

For criminal offenses as referred to in Article 116(1)(a), criminal sanctions shall be imposed on the business entity represented by the management authorized to represent it in and out of court in accordance with laws and regulations as the functional perpetrator.

Pursuant to Article 118 of Law No. 32 of 2009, criminal sanctions against business entities are imposed on corporations represented by authorized officers acting in their official capacity; thus, the corporation remains liable for damage to the forest ecosystem caused by electricity projects.

Pursuant to Article 119 of Law No. 32 of 2009 on Environmental Protection and Management, the following provisions apply. In addition to the criminal penalties provided for in this Law, business entities may be subject to additional criminal penalties or administrative sanctions in the form of:

- a. Confiscation of profits derived from the criminal offense;
- b. Closure of all or part of the business premises and/or operations;

- c. Remediation of the consequences of the criminal offense;
- d. An obligation to perform what was unlawfully neglected; and/or
- e. Placing the company under receivership for a maximum period of 3 (three) years.

Pursuant to Article 119 of Law No. 32 of 2009, in addition to the principal penalty, a corporation may also be subject to additional penalties, including forfeiture of profits, business closure, remediation of the consequences of the criminal act, an obligation to perform neglected actions, and placement of the company under receivership, as a form of environmental restoration and enforcement of the law regarding environmental damage.

2) Accountability of Management (Board of Directors/Decision-Makers)

The legal basis for the criminal liability of corporate officers is:

Pursuant to Article 116(1)(b) of Law No. 32 of 2009 on Environmental Protection and Management, it is stipulated that:

If an environmental crime is committed by, for, or on behalf of a business entity, criminal charges and penalties shall be imposed on:

The person who gave the order to commit the crime or the person acting as the leader of the activities involved in the crime.

Pursuant to Article 116(1)(b) of Law No. 32 of 2009, managers or parties who issue orders and direct activities may be subject to criminal penalties for environmental damage occurring in electricity projects.

Pursuant to Article 117 of Law No. 32 of 2009 on Environmental Protection and Management, the following applies:

If criminal charges are brought against the person who gave the order or the leader of the criminal act as referred to in Article 116(1)(b), the penalty of imprisonment and a fine shall be increased by one-third.

Pursuant to Article 117 of Law No. 32 of 2009, if a criminal sentence is imposed on the person who gave the order or the leader of an environmental crime, the penalty of imprisonment and the fine shall be increased by one-third.

Article 20 of Law of the Republic of Indonesia No. 1 of 2023 on the Criminal Code provides that:

Any person shall be punished as a perpetrator of a criminal offense if:

- a. commits the criminal offense personally;
- b. commits the criminal offense through the use of an instrument or by instructing another person who is not criminally liable;
- c. participates in committing the criminal offense; or
- d. induces another person to commit the criminal offense by offering or promising something, abusing power or authority, using violence, threatening violence, deceiving, or by providing an opportunity, means, or information.

Pursuant to Article 20 of Law No. 1 of 2023 on the Criminal Code, a person may be held criminally liable as a perpetrator of a criminal offense if they commit the offense themselves, instruct another person who lacks criminal responsibility, participate in the offense, or induce another person to commit the offense through various means such as making promises, abusing power, or providing the means to do so; thus, this provision expands criminal liability to include environmental crimes in the electricity sector.

3) Pertanggungjawaban Pihak Ketiga (Aktor Non-Korporasi)

Third parties such as contractors, EIA consultants, or even officials involved may be held liable under. Article 20 of Law of the Republic of Indonesia No. 1 of 2023 on the Criminal Code provides that:

Any person shall be punished as a perpetrator of a criminal offense if:

- a. commits the criminal offense personally;
- b. commits the criminal offense through the use of an instrument or by instructing another person who is not criminally liable;

- c. participates in committing the criminal offense; or
- d. induces another person to commit the criminal offense by offering or promising something, abusing power or authority, using violence, threatening violence, deceiving, or by providing an opportunity, means, or information.

Under Article 20 of Law No. 1 of 2023 on the Criminal Code, third parties such as contractors, EIA consultants, or officials may be subject to criminal penalties if they personally commit, participate in, order, or incite others to commit a criminal offense; as a result, they may also be held liable for environmental damage caused by electricity projects.

Article 21 of Law of the Republic of Indonesia No. 1 of 2023 on the Criminal Code provides that:

- (1) Any person shall be punished as an accomplice to a criminal offense if they intentionally:
 - a. Provide an opportunity, means, or information to commit a criminal offense; or
 - b. Provide assistance at the time the criminal offense is committed.
- (2) The provision referred to in paragraph (1) does not apply to aiding and abetting a criminal offense punishable only by a fine not exceeding Category II.
- (3) The penalty for aiding and abetting a criminal offense shall not exceed two-thirds (2/3) of the maximum penalty prescribed for the principal criminal offense in question.
- (4) Aiding and abetting a criminal offense punishable by the death penalty or life imprisonment shall be punishable by imprisonment for a maximum of 15 (fifteen) years.
- (5) The additional penalty for aiding and abetting a criminal offense shall be the same as the additional penalty for the relevant criminal offense.

Pursuant to Article 21 of Law No. 1 of 2023 on the Criminal Code, a third party who intentionally provides an opportunity, means, information, or assistance in the commission of a criminal offense may be punished as an accessory to the offense, with a maximum penalty of two-thirds of the principal sentence; thus, this provision strengthens the liability of non-corporate actors for environmental damage in the electricity sector.

Article 111 of Law of the Republic of Indonesia No. 1 of 2023 on the Criminal Code provides that:

- (1) An environmental permit-issuing official who issues an environmental permit without it being accompanied by an EIA or UKL-UPL as referred to in Article 37(1) shall be punished by imprisonment for a maximum of 3 (three) years and a fine of up to Rp3,000,000,000.00 (three billion rupiah).
- (2) Officials issuing business and/or activity permits who issue such permits without an environmental permit as referred to in Article 40(1) shall be punished by imprisonment for a maximum of 3 (three) years and a fine of up to Rp3,000,000,000.00 (three billion rupiah).

Pursuant to Article 111 of Law No. 1 of 2023 on the Criminal Code, officials who issue environmental permits without an Environmental Impact Assessment (EIA) or an Environmental Management Plan (EMP), or business permits without an environmental permit, may be punished by imprisonment for a maximum of 3 years and a fine of up to Rp3 billion; thus, this provision establishes the criminal liability of officials for issuing permits that have the potential to cause environmental damage.

Article 112 of Law of the Republic of Indonesia No. 1 of 2023 on the Criminal Code provides that:

Any authorized official who intentionally fails to supervise the compliance of the person in charge of a business and/or activity with the regulations and environmental permits as referred to in Articles 71 and 72, resulting in environmental pollution and/or damage that causes loss of human life, shall be punished by imprisonment for a maximum of 1 (one) year or a fine of up to Rp500,000,000.00 (five hundred million rupiah).

Pursuant to Article 112 of Law No. 1 of 2023 on the Criminal Code, an official who

intentionally fails to supervise a business's compliance with environmental permits, thereby causing environmental pollution or damage that results in the loss of human life, may be punished by imprisonment for a maximum of one year or a fine of up to Rp500 million, thus affirming criminal liability for negligence in oversight regarding environmental protection.

CONCLUSION

Criminal liability in the electricity sector for damage to forest ecosystems in National Strategic Projects (PSN) demonstrates that environmental criminal law in Indonesia has established liability for both individuals and corporations as legal entities. Damage to forest ecosystems can be classified as an environmental crime if it meets the elements of an unlawful act, environmental damage, and a causal link to electricity business activities. The application of the strict liability principle in the Environmental Protection and Management Law strengthens law enforcement because it does not always require proof of fault. However, the effectiveness of criminal liability remains suboptimal because, in practice, law enforcement often shifts toward administrative and economic development approaches, so that the criminal function as an *ultimum remedium* has not been fully realized in protecting forest ecosystems. Recommendations: There is a need to strengthen the harmonization between National Strategic Project policies and environmental laws to prevent development interests from taking precedence over ecological protection, and to ensure that the principles of sustainable development are fully implemented in the electricity sector. Additionally, law enforcement agencies need to optimize the application of corporate criminal liability through the use of strict liability and supplementary penalties in the form of environmental restoration, so that law enforcement is not merely repressive but also restorative. The government must also tighten oversight of Environmental Impact Assessments (EIA) for every National Strategic Project (PSN) in the electricity sector and clarify the limits on the use of forest areas, to prevent environmental damage from the project planning stage.

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