

Policy Status Update

Towards Sustainable Foreign Investment in the Indonesian Energy Sector:

PROSPECTS AND CHALLENGES

April 2022

I. Introduction

The need to transition to renewable energy has become more critical than ever. The Conference of Parties (COP) 26 in Glasgow delivered the Glasgow Climate Pact. The Glasgow Climate Pact is the first-ever climate deal to explicitly plan to reduce coal, the worst fossil fuel for greenhouse gases. The deal also presses for more urgent emission cuts and promises more money for developing countries - to help them adapt to climate impacts. Outside the negotiating framework of the COP, several things have been announced that can undoubtedly be seen as positive: The text of the so-called Glasgow Pact provides for a gradual phase-down from coal. Twenty-two countries have pledged to phase out the internal combustion engine by 2035 and increase the share of zero-emission new cars and vans to 100%.

Moreover, 141 countries have also pledged at the COP to secure funding for sustainable agriculture, forest management, conservation, restoration, and to halt deforestation. Methane emissions - methane and CO₂, are greenhouse gases produced primarily in industrial agriculture - will be reduced by 30% by 2030. That was what 103 countries have agreed to.¹ Regarding coal-fired power plants, a total of 20 countries, among them Vietnam, Morocco, and Poland, have announced that they will no longer build any new coal-fired power plants. It is the first time that a COP final text mentions a phase-out of coal and fossil fuels.

At the end of the COP26 negotiation rounds, all parties to the conference agreed on seven main points in responding to climate change.² One of those commitments was to move away from using fossil fuels in energy production. However, nearing the end of the conclusion of COP26, India and China altered the commitment on fossil-fuel usage from its original commitment of “phasing-out” to “phasing-down”.³ The Indian Minister of Environment, Forest, and Climate Change, for example, asked how developing countries could promise to phase out coal and fossil fuel subsidies when they “have still to deal with their development agendas and poverty eradication.”⁴

The Indonesian government also voiced a likewise response. During the COP26, the Indonesian Minister of Environment and Forestry, Siti Nurbaya, wrote on her Twitter account, *inter alia*, that Indonesia should not impede significant economic and infrastructure development projects during President Jokowi’s regime in the name of carbon emission reduction or deforestation.⁵

¹ Michael Kühne, ‘COP 26: The Climate Conference That Failed the South’ *Welthungerhilfe*, <https://www.welthungerhilfe.org/news/latest-articles/2021/cop-26-the-climate-conference-that-failed-the-south/>

² See: <https://www.un.org/en/climatechange/cop26>

³ Malu Cursino and Doug Faulkner, ‘COP26: China and India must explain themselves, says Sharma,’ *BBC News* (14 November 2021), accessed from: <https://www.bbc.com/news/uk-59280241>

⁴ Paul Rincon, ‘COP26: New Global Climate Deal Struct in Glasgow’ *BBC News*, <https://www.bbc.com/news/world-59277788>

⁵ Dian Erika Nurgraheny, ‘Kontroversi Pernyataan Menteri LHK Soal Pembangunan dan Deforestasi,’ *Kompas.com*, <https://nasional.kompas.com/read/2021/11/05/06255601/kontroversi-pernyataan-menteri-lhk-soal-pembangunan-dan-deforestasi?page=all>

Therefore, it was not surprising when the UN Secretary-General, Antonio Guterres, expressed his dissatisfaction with the results of the COP26. Guterres remarked that although the texts would include “important steps, unfortunately, the collective political will was insufficient to overcome some deep contradictions.” He further added how the conference failed to end fossil-fuel subsidies, phasing out coal, setting carbon prices, improving vulnerable communities’ resilience to climate change, and meeting the pledge of \$100 billion in climate finance to support developing countries.⁶ Like Guterres, the President of COP26, Alok Sharma, also expressed his disappointment at the less than ambitious commitments the parties could come up with at the COP26.⁷

Despite the seemingly grim future of the global commitment against energy dependence on fossil fuels, it remains noteworthy to highlight how countries worldwide address the transition to renewable energy sources in their domestic legal policies. In that regard, this paper aims to look at Indonesia and identify key regulatory challenges towards the prospects of transitioning to new-renewable energy. This paper will focus specifically on legal issues in the context of foreign investment in the Indonesian renewable energy sector. There are two main questions that this paper will be addressing in that context. Firstly, to see if Indonesia has enacted an optimal environmental safeguard in its environment and investment-related laws. Gauging the optimality of environmental safeguard standards is often associated with the comprehensiveness in the scope of factors included in those standards. Today that would amount to if and how a country, i.e. Indonesia, addresses climate change in its domestic laws. Secondly, with the global commitment to reducing fossil fuel usage and transiting to renewable energy alternatives, this paper aims to identify the ladders and laggards to such transition. This section shall focus on the commercial aspects of investing in renewable energy projects in Indonesia. It focuses on assessing the economic viability in light of the regulatory costs incurred on investors should they choose to invest in the Indonesian new-renewable energy market.

This paper is structured as follows. After this Introduction, Section II provides a brief overview of the regulatory framework concerning foreign investment, environmental law in general, and new-renewable energy projects in Indonesia. Based on the discussion in Section II, Section III proceeds to identify the regulatory gaps in Indonesian law concerning foreign investment, environmental law, and law on new-renewable energy. Finally, without intending to provide an exhaustive list of solutions that may fill in those regulatory gaps, Section IV delves into potential solutions to improve the quality of Indonesian environmental safeguard standards and how foreign investment can also play a meaningful role in that regard.

⁶ Kühne, ‘COP 26,’ *Welthungerhilfe*.

⁷ William James and Elizabeth Piper, “‘Deeply sorry’: UK’s Sharma offers apology for last-minute changes to climate deal,” *Reuters* (14 November 2021), accessed: <https://www.reuters.com/business/cop/deeply-sorry-uks-sharma-offers-apology-last-minute-changes-climate-deal-2021-11-13/>

II. An Overview of the Regulatory Framework on Foreign Investment, Environmental Safeguards, and New-Renewable Energy Projects in Indonesia.

This section will provide a general overview on the regulatory framework regulating foreign investment activities in Indonesia. Accordingly, the summary of the regulatory framework on foreign investment shall be written in conjunction with environmental law provisions regarding environmental safeguard standards. Subsequent to the regulatory framework summary on foreign investment, this section outlines the regulatory framework regulating new-renewable energy projects in Indonesia.

List of Regulations:

- Law No. 25 of 2007 on Capital Investment; as last amended by Law No. 11 of 2020 (**Capital Investment Law**).
- Law No. 30 of 2007 on Energy (**Energy Law**)
- Law No. 30 of 2009 on Electricity, as last amended by Law no. 11 of 2020 (**Electricity Law**)
- Law No. 40 of 2009 on Company; as last amended by Law No. 11 of 2020 (**Company Law**).
- Law No. 32 of 2009 on Environmental Protection and Management; as last amended by Law No. 11 of 2020 (**Environmental Law**).
- Law No. 11 of 2020 on Job Creation (**Job Creation Law**).
- Government Regulation No. 70 of 2009 on Energy Conservation (Energy Conservation GR)
- Government Regulation No. 5 of 2021 on Risk-Based Business Licensing Process (**GR 5/2021**).
- Government Regulation No. 22 of 2021 on the Implementation of Environmental Protection and Management (**GR 22/2021**).

- Presidential Regulation No. 71 of 2006 on the Assignment to PT Perusahaan Listrik Negara (*Persero*) to Perform the Acceleration of the Development of Coal-Powered Power Plants, as last amended by Presidential Regulation No. 193 of 2014 (**PR 71/2006**).
- Presidential Regulation No. 10 of 2021 on Investment Business Sectors (**PR 10/2021**).
- Presidential Regulation No. 98 of 2021 on the Implementation of Carbon Economic Value in Achieving Nationally Determined Contribution Target and Greenhouse Gases Emission Control in National Development (**Carbon Economic Value PR**)
- Minister of Energy and Mineral Resources Regulation No. 39 of 2017 on New Energy and Renewable Energy Physical Utilization Activity Performance and Energy Conservation (**MEMRR 39/2017**).
- Minister of Energy and Mineral Resources Regulation No. 50 of 2017 on the Utilization of Renewable Energy Source for Electricity Production, as last amended by Minister of Energy and Mineral Resources Regulation No. 4 of 2020 (**MEMRR 50/2017**).
- Minister of Energy and Mineral Resources Regulation No. 5 of 2021 on the Business Activity and Product Standard in the Implementation of Risk-Based Business Licensing in the Energy and Mineral Resources Sector (**MEMRR 5/2021**).
- Minister of Environment and Forestry Regulation No. 1 of 2021 on Corporation Environmental Management Performance Rating Program (**MoEFR 1/2021**).
- Capital Investment Coordinating Board Regulation No. 4 of 2021 on Risk-Based Business Licensing and Capital Investment Facility Guideline and Procedure (**CICBR 4/2021**).
- PT PLN Director Regulation No. 0062.P/DIR/2020 on the Purchase of Electricity Power from New and Renewable Energy Power Plant (**Regulation 0062.P/2020**).

A. Foreign Investment in Indonesia

Foreign investment is mainly regulated under the Capital Investment Law. The Capital Investment Law defines foreign investment as an investing activity to conduct business within the territory of the Republic of Indonesia, which is undertaken by foreign investors, either entirely sourced from a foreign capital, or in the form of a joint-venture with a domestic investor.⁸ A foreign investor can either be a foreign national person, a foreign corporation, and/or a foreign government.⁹ Foreign investment by a foreign investor can only be made through a limited liability company (LLC / *Perseroan Terbatas*) legal entity¹⁰; or more precisely a foreign-invested LLC (*Perseroan terbatas penanaman modal asing*). The law also sets a minimum limit for foreign investment of Rp10,000,000,000.00 (10 billion rupiahs), excluding land and building assets, for each business sector code classification per project location.¹¹ An LLC should be established with a minimum of two shareholders.¹² The investment may be made in the form of shares subscription or purchase at the founding of the LLC or shares purchase.¹³ Lastly, particularly regarding foreign-invested LLC, the law bars certain commercial sectors from foreign investment, but allows foreign investment in other specific commercial sectors with a limited ownership percentage.¹⁴ The amount of shares owned by a shareholder determines the shareholder's ownership in the LLC.¹⁵ The ownership of shares confers a shareholder with financial and/or management rights.¹⁶

Before commencing its commercial activities, an LLC is subject to a range of license obligations. GR 5/2021 classifies businesses into three categories: low-risk, medium-risk (lower- and higher medium-risk), and high-risk.¹⁷ The risks are assessed based on a wide range of aspects, including health, security, and environmental safety; which are determined based on the following factors: the type of business activity, location of business activity, and volatility risk.¹⁸

Based on the level of risk¹⁹, a business entity will then be subject to different licensing regimes. For low-risk business activities, the law only requires such business entities to apply for a Business Identity Number (*Nomor Induk Berusaha/NIB*).²⁰ NIB also applies for small-medium enterprise companies as a form of the Indonesian National Standard (*Standar Nasional Indonesia/SNI*).²¹ Lower- and higher medium-risk businesses are obligated to acquire an NIB and Standard Certificates (*Sertifikat Standar*).²² High-risk businesses are required to obtain an NIB and a permit²³ (*izin / vergunning*).²⁴ A permit in this context should be properly understood as a business permit. Raising the issue of environmental safeguards,

⁸ Art. 1 no. 3 Capital Investment Law.

⁹ Art. 1 no. 6 Capital Investment Law.

¹⁰ Art. 5 para. (2) Capital Investment Law.

¹¹ Art. 12 para. (2) CICBR 4/2021.

¹² Art. 7 para. (1) Company Law.

¹³ Art. 5 para. (3) Capital Investment Law.

¹⁴ See: Appendix III PR 10/2021.

¹⁵ Art. 51 & Art. 52 Company Law.

¹⁶ The Company Law allows the issuance of shares that do not include management rights (e.g. voting rights, etc.) to a shareholder. However, all issued shares must and will always confer a shareholder with a financial right (e.g. right to a dividend). See: Art. 49 para. (2) jo. Art. 52 para. (3) jo. Art. 53 para. (4) Company Law.

¹⁷ Art. 13 GR 5/2021.

¹⁸ Art. 9 para. (3) GR 5/2021.

¹⁹ The Government of Indonesia has made a list of business sectors and classified them with their respective identified risk in the *Klasifikasi Baku Lapangan Usaha Indonesia (KBLI) 2020* [Indonesian Business Sectors Classification Manual 2020]. See: <https://oss.go.id/informasi/kbli-berbasis-risiko>

²⁰ Art. 12 para. (1) GR 5/2021.

²¹ Art. 12 para. (2) GR 5/2021. The SNI is the Indonesian version of commercial products standardization.

²² Art. 13 and Art. 14 GR5/2021.

²³ Permit (*izin*) is defined as, "the approval of Central Government or Regional Government on the commencement of a business activity that has to be acquired by a Business Owner prior to commencing the business activity." See: Art. 1 No. 14 GR 5/2021.

²⁴ Art. 15 para (1) GR 5/2021.

in this context, becomes relevant when discussing high-risk business permit requirements, namely an environmental permit.²⁵

The Job Creation Law amended the Environmental Law by replacing the requirement for an environmental permit (*izin lingkungan*), with environmental approval (*persetujuan lingkungan*).²⁶ As part of the business permit requirement for high-risk business activities, a business entity should also apply for, among others, environmental approval.²⁷ Environmental approval in this regard also serves as a prerequisite for the effective activation of a business permit.²⁸ In addition, the Environmental Law regulates that businesses and/or activities with significant impact to the environment are under the obligation to conduct an environmental impact assessment (EIA)²⁹, which is the underlying document for the issuance of an environmental feasibility approval.³⁰ The significance of the impact is measured according to the following criteria:³¹

- a. The number of people impacted by the business operation and/or activity plan;
- b. The scope of the area of impact distribution;
- c. The intensity and period of impact occurrence;
- d. The amount of other environmental components that will be impacted;
- e. The cumulative nature of the impact;
- f. The reversibility of impact; and/or
- g. Other possible criteria according to recent science and technology development.

While environmental approval can be said to essentially share many licensing features with the environmental permit, the Job Creation Law has one fundamental difference concerning the legal status of environmental approval in its relation to a business permit. Under the new Job Creation Law regime, an environmental approval is deemed valid insofar as the business permit is still valid.³² Therefore, the new regulation on environmental approval differs fundamentally from the legal status that an environmental permit has in its relation to a business permit before the enactment of Job Creation Law. Under the previous regime, an environmental permit was issued with an expiry date not contingent on the validity of a business permit; although both the environmental permit and environmental approval serve as a prerequisite for the effective activation of a business permit.

²⁵ In order to avoid confusion, a brief remark on how a standard certificate differs from a permit is in order. From a theoretical perspective, the degree of government intervention in private activities can be divided into two broad spectrums, ranging from the lowest to the highest degree. At the lowest degree of intervention is the obligation to provide information. Information is only required from a regulated subject to disclose certain facts, without specific behavioral controls. In contrast, the highest degree of government intervention would be a prior approval, including a permit as one of its regulatory instruments. A prior approval operates by barring a regulated subject from engaging in an activity lawfully, without otherwise having first obtained the government's prior approval to engage in such activity. Failing to do so would constitute an offense punishable by law. Between information obligation and prior approval are standards, which are arguably similar to the standard certificate in GR 5/2021. Standards are a regulatory technique allowing a regulated subject to engage in activity without any *ex-ante* control, but failing to meet those standards would result in the commission of an offence. See: Anthony Ogus, *Regulation: Legal Form and Economic Theory* (2004), 150-151.

²⁶ Art. 1 no. 35 Environmental Law. See also generally: Section III GR 22/2021.

²⁷ See: Art. 4 jo. Art. 6 GR 5/2021 jo. Art. 3 para. (3) GR 22/2021.

²⁸ Art. 3 para. (3) GR 22/2021.

²⁹ Art. 22 para. (1) Environmental Law.

³⁰ Art. 3 para. (4) a. GR 22/2021.

³¹ Art. 22 para. (2) Environmental Law.

³² Art. 3 para. (5) GR 22/2021.

B. Investing in New-Renewable Energy Projects in Indonesia

Energy is principally regulated under Law No. 30 of 2007 (**Energy Law**). The Energy Law defines energy as the ability to perform work that may come in heat, light, mechanics, chemistry, and electromagnetics³³; and energy source as something which may produce energy, both directly or through conversion or transformation process.³⁴ Regarding renewable energy, the Energy Law distinguishes between renewable energy sources and renewable energy. A renewable energy source is defined as an energy source produced from a sustainable energy source if managed well, including geothermal, wind, bioenergy, solar, water current, and sea surface temperature difference and movement.³⁵ Renewable energy is energy sourced from a renewable energy source(s).³⁶ In addition to renewable energy, the law also regulates new energy sources, namely energy sources that can be produced from new technology from both renewable and non-renewable energy sources - e.g. nuclear, hydrogen, coal-bed methane, liquified coal, and gasified coal.³⁷ But for the purposes of the writing of this paper, the discussion will be limited only to renewable energy and renewable energy sources.³⁸

In terms of the commercial aspect of energy management, the Energy Law differentiates 'energy business' (*pengusahaan energi*) from 'energy services business' (*pengusahaan jasa energi*). The former pertains to energy production and/or utilization³⁹, whereas the latter pertains to commercial services directly or indirectly associated with energy production and/or utilization.⁴⁰ Furthermore, energy business can only be conducted by a corporation, permanent establishment, and individual persons⁴¹; whereas energy services business can only be undertaken by a corporation and individual persons.⁴²

Specific to the purpose of this paper is the case of foreign investment in renewable energy projects in Indonesia, namely building renewable energy sourced power plants. As mentioned earlier, foreign investments can only be undertaken in Indonesia by a foreign-invested LLC. Hence, should a foreign investor wish to engage in the Indonesian energy business or energy services business, they must first establish an LLC.

Moreover, the law specifies an energy power production threshold for power plant projects. PR 10/2021 reserves power plant projects with energy power production less than 1 Mega Watt (<1MW) to small-medium enterprises,⁴³ hence barring large scale business enterprises - e.g. foreign-invested LLC—from commercially engaging in <1MW power plant projects. Additionally, the Indonesian Government has recently enacted a policy to only allow new power plant investments outside Java,

³³ Art. 1 no. 1 Energy Law.

³⁴ Art. 1 no. 2 Energy Law. While Energy Law is the main law regulating energy-related activities in Indonesia, there are also several other laws regulating energy in its sectoral laws. However, there is a lack of uniformity and consistency in how these sectoral laws define energy. See: Irwansyah and Fariz Panghegar, 'Understanding Investments in the Energy Sector' *Traction Energy Asia* (10 December 2020), <https://tractionenergy.asia/understanding-investments-in-the-energy-sector/>; [p]''

³⁵ Art. 1 no. 6 Energy Law.

³⁶ Art. 1 no. 7 Energy Law.

³⁷ Art. 1 no. 4 Energy Law.

³⁸ This is due to the fact that power generation sourced from new energy sources have yet to operate in Indonesia. There have only been renewable energy power plants operating in Indonesia so far. Included in the context of renewable energy and renewable energy sources are solar panel, micro-hydro, wind, etc. Moreover, in the recent law draft on new and renewable energy, the government of Indonesia included coal bed methane, liquefied coal, and gasified coal as kinds of new energy sources. Such provision therefore indicates that new energy sources are not necessarily "new" environment-friendly energy sources.

³⁹ Art. 1 no. 18 Energy Law.

⁴⁰ Art. 1 no. 19 Energy Law.

⁴¹ Art. 23 para. (2) Energy Law.

⁴² Art. 23 para. (3) Energy Law.

⁴³ Appendix II PR 10/2021, no. 24, 6.

unless they are built by *Perusahaan Listrik Negara (PLN)*—a state-owned electricity company—or when the power plants are generated from renewable energy sources.⁴⁴ Additionally, the Energy Law obliges anyone using energy and/or an energy source for more than 6,000 Tonne Oil Equivalent (TOE) per annum to perform energy conservation through energy management.⁴⁵ Failing to perform energy conservation shall subject an energy user to a range of disincentive measures, namely: a.) warning; b.) public announcement; c.) fine; and/or d.) decreasing energy input.⁴⁶ Conversely, an energy user may receive a range of incentives from the government upon executing successful energy conservation⁴⁷, among others:⁴⁸ a.) local government tax facility for energy-saving equipment; b.) tax discount, subsidy, and the exemption for energy-saving equipment; c.) import duty facility for energy-saving equipment; d.) lower premium rate for investment in energy conservation technologies; and/or e.) energy audit partnership funded by the government.

One particular characteristic of the disincentive measures, which largely resembles many of an administrative sanction's features, is the public announcement. In this regard, the Energy Conservation GR provides that users who failed to perform successful energy conservation will first be given a written warning up to three times, with a one-month time interval from one warning to another.⁴⁹ If the users remain unable to carry out energy conservation, the Minister/governor/mayor/head of district can announce the users' name in mass media.⁵⁰ This naming and shaming method is similar to the environmental rating program (the **PROPER**)⁵¹ that the Ministry of the Environment and Forestry (**MoEF**) has used for years. Should the users keep failing to implement energy conservation within one month after the announcement, the Minister/governor/mayor/head of district may impose fines as much as twice the amount of the value resulting from the users' energy waste.⁵² Finally, if the users fail to pay the fines within a month, the Minister/governor/mayor/head of district may reduce the energy supply for the respective users. Such a reduction of energy supply does not eliminate the obligation of the users to pay the previously imposed fines.⁵³

⁴⁴ Memorandum of Understanding between Ministry of Investment/ Capital Investment Coordinating Board, Ministry of State-Owned Enterprises, and PLN dated 30 March 2021. See: <https://oss.go.id/informasi/kbli-kode?kode=D&kbli=35111>

⁴⁵ Art. 12 para. (2) Energy Conservation GR. Energy management can be performed by: a.) appointing an energy manager; b.) organizing an energy conservation program; c.) periodic energy audit; d.) implementing energy audit recommendation; and e.) reporting annual energy conservation performance to respective government authorities. See: Art. 12 para. (3) Energy Conservation GR.

⁴⁶ Art. 22 para. (2) Energy Conservation GR.

⁴⁷ This is determined based on two factors: a.) reduction in specific energy consumption; and/or b.) reduction in energy consumption elasticity. See: Art. 19 para. (1) Energy Conservation GR.

⁴⁸ Art. 20 para. (1) Energy Conservation GR.

⁴⁹ Art. 23 Energy Conservation GR

⁵⁰ Art. 24 Energy Conservation GR

⁵¹ See generally: MoEFR 1/2021.

⁵² Art. 25 Energy Conservation GR

⁵³ Art. 26 Energy Conservation GR

C. Energy Business and Electricity Distribution in Indonesia

While energy production may be conducted by private entities, the mass distribution of electric power can only be conducted by the state-owned electricity company, PLN.⁵⁴ Hence, the commercialization of the energy produced from a privately owned power plant is limited to the sale and purchase of energy between an energy production company with PLN. Since the business of an energy production company is producing energy for electricity, the business permit that an energy production company should apply for is an Electricity Power Production Business Permit (*Izin Usaha Penyediaan Tenaga Listrik / IUPTLU*).⁵⁵ Moreover, an energy production company should also arrange for an Electricity Sale and Purchase Agreement (*Perjanjian Jual-Beli Listrik / PJBL*) with PLN. For an energy production company generating its energy from renewable energy sources, the general agreement clauses in the PJBL with PLN are regulated under Regulation 0062.P/2020. Regulation 0062.P/2020 also sets a price cap for energy purchases from energy producers by PLN. Regarding environmental safeguards, Regulation 0062.P/2020 introduces carbon credit as one of the boilerplate clauses in the PJBL.⁵⁶

D. Carbon Credit, Carbon Economic Value, and National Climate Change Mitigation-Adaptation Measures

As mentioned in the preceding section, one of the boilerplate clauses included in the PJBL is carbon credit. Until recently, the government of Indonesia has enacted Carbon Economic Value PR. With the enactment of the Carbon Economic Value PR, the provision of carbon credit in the PJBL will refer mainly to the provisions contemplated in the Carbon Economic Value PR. The following paragraphs shall discuss the background to the Carbon Economic Value PR and some of its main characteristic features.

Indonesia has submitted its commitment to reduce Green House Gases (GHG) three times under various international agreements. The first commitment to reducing GHG can be traced back to 2010.⁵⁷ Then, as one of the first developing countries to declare association with the Copenhagen Accord, Indonesia promised to cut emissions by 26% in 2020 and 41% with international support.

Moving forward to 2016, the Government of Indonesia signed the 2015 Paris Agreement. Consequently, Indonesia submitted a GHG reduction target of 29% versus Business as Usual (BAU), and up to 41% with international assistance for 2020-2030 in its Nationally Determined Contribution (NDC) - a slight increase its commitment compared to 2010.⁵⁸

⁵⁴ See: PR 71/2006.

⁵⁵ See: Attachment II MEMRR 5/2021, 489-497. Part of the feasibility study for IUPTLU shall be made by a certified third-party and must include the following information: 1.) financial feasibility study; 2.) operational feasibility study; 3.) network interconnectivity study; 4.) installation location; 5.) one-line diagram; 6.) the type and capacity of business; 7.) construction plan; and 8.) operation plan.

⁵⁶ Art. 18 para. (1) letter t. Regulation 0062.P/2020.

⁵⁷ Indonesia National Council of Climate Change, Indonesia's Plan to Reduce GHG Emissions, Ref No. E-01/EC-NCCC/01/2010 <https://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/indonesiacphaccord.pdf>

⁵⁸ Republic of Indonesia, First Nationally Determined Contribution Republic Indonesia, pp. 2. <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Indonesia%20First/First%20NDC%20Indonesia_submitted%20to%20UNFCCC%20Set_November%20%202016.pdf>

On 21 July 2021, the MoEF, on behalf of the Government of Indonesia, submitted its updated NDC to the United Nations Framework Convention on Climate Change (**UNFCCC**) secretariat prior to the COP26 at Glasgow in November 2021.⁵⁹ Indonesia decided not to increase its commitment in the updated NDC based on the country's emissions level assessment in its Third National Communication and "...also taking into consideration its development challenges in eradicating poverty, as well as creating a better quality of life for its citizens."⁶⁰

To achieve the emission reduction target as stated in its updated NDC, the Indonesian Government issued the Carbon Economic Value PR. The Carbon Economic Value PR aims to encourage efforts to reduce emissions and specifically regulate the implementation of carbon pricing, which will be implemented in the second quarter of 2022. The regulation sets in motion four carbon market instruments: emission trading (cap and trade), carbon offsets, carbon levies including a carbon tax⁶¹, as well as result-based payments, though the regulation provides an open clause on other market instruments as well.⁶² Aside from the market instruments, the Presidential Regulation also replaced the previous Presidential Regulation No. 61 of 2011 on Emission Reduction Action Plan (Rencana Aksi Nasional Gas Rumah Kaca).⁶³ Moreover, the Carbon Economic Value PR provides more detailed arrangements regarding mitigation and adaptation, making it one of the central legal instruments that addresses climate change aside from the Environmental Law.

The Carbon Economic Value PR regulates climate change mitigation and adaptation quite comprehensively. It is also the first time Indonesia has included an emission reduction target in a binding legal instrument after the Paris Agreement regime.⁶⁴ This regulation also underlines several government obligations related to climate change mitigation and adaptation, such as making NDC implementation strategies and roadmaps, and preparing and determining action plans for climate change mitigation and adaptation.⁶⁵ In addition, this presidential regulation also regulates mitigation provisions in each of the sectors listed in the NDC, namely energy, forestry, agriculture, industry, and waste and their sub-sectors.⁶⁶ Finally, this regulation also obligates local governments to take action on mitigation and adaptation.⁶⁷

⁵⁹ Ministry of Environment and Forestry, "Updated National Determined Contribution", pp. 5. <<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Indonesia%20First/Updated%20NDC%20Indonesia%202021%20-%20corrected%20version.pdf>>

⁶⁰ *Ibid.*

⁶¹ To regulate the implementation of Carbon Tax subject to emitting activities and goods, the government also issued Law No. 7 of 2021 on Revised Tax Law. The position of the tax law is as a special arrangement regarding carbon taxes as part of carbon levies in Presidential Regulation No. 98 of 2021.

⁶² Art. 47 para. (1) Carbon Economic Value PR

⁶³ Art. 88 Carbon Economic Value PR

⁶⁴ Art. 3 Carbon Economic Value PR.

⁶⁵ Art. 3 jo. Art. 9 Carbon Economic Value PR.

⁶⁶ Art. 28 para. (1) Carbon Economic Value PR.

⁶⁷ Art. 28 para. (3) Carbon Economic Value PR.

III. Identifying Regulatory Gaps and Obstacles to Improving Environmental Safeguards in Indonesia

The previous section dealt with a summary of key environmental protection provisions related to Indonesia's foreign investment activities and commercial renewable energy projects. This section will identify some significant regulatory gaps in environmental safeguards concerning investment and commercial activities in Indonesia's energy sector.

Regulatory gap refers to substantive environmental issues which are currently unregulated or insufficiently regulated⁶⁸, whereas regulatory laggards refer to situations in which government intervention through regulation may inhibit the improvement and monitoring of environmental safeguards under specific circumstances.

While acknowledging the many regulatory gaps in Indonesian environmental law⁶⁹, this paper limits the scope of discussion to environmental issues with immediate association to investment and commercial activities. In that regard, this paper first identifies the problems posed by the lack of climate risk assessment and the balancing of effluent with ambient environmental standards in Indonesian environmental impact assessment (EIA). The Celukan Bawang case exemplifies the absence of potential climate change impacts in the Indonesian EIA, and the Cikijing case exemplifies the lack of consideration regarding ambient environmental standards in the EIA. The second issue that this paper identifies are the potential regulatory obstacles blocking Indonesia's transition to renewable energy. PLN's monopoly on electricity distribution can potentially inhibit the commercial viability of both domestic and foreign investment in renewable energy projects in Indonesia.

A. The Curious Case of the Indonesian EIA

a. Lack of Strong Commitment to Climate Change Mitigation

On January 2018, a group of plaintiffs—comprising of private individuals and an environmental organization, Greenpeace Indonesia—filed an administrative complaint (**gugatan administratif**) against the Governor of Bali—the defendant. The plaintiffs challenged the legality of the environmental permit issued by the Governor of Bali to PT PLTU Celukan Bawang - intervening defendant II—to operate a coal-fired steam power

⁶⁸ Kristina M. Gjerde, et. al., 'Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction' (2008) Marine Series, No. 1 (IUCN Environmental Policy and Law Papers), 1.

⁶⁹ See for example: Hariadi Kartodihardjo, *Dosa dan Masa Depan Planet Kita: Percikan Pemikiran tentang Tata Kelola, Kebijakan, Serta Politik Kehutanan dan Lingkungan Hidup* (Foresta Darmaga Indonesia, 2021), 119-210.

plant in Celukan Bawang village, Bali (hereinafter the *Celukan Bawang* case).⁷⁰ The plaintiffs argued that the issuance of the environmental permit was illegal as the EIA precluded the climate impacts of PT PLTU Celukan Bawang's proposed coal-fired steam power plant activity in the analysis.⁷¹ In arguing for the illegality of the environmental permit, the plaintiffs based their argument on the broad definition of the term "holistic evaluation" as contemplated in Art. 25

Environmental Law 2009, that reads, "The EIA document shall contain (a.) an assessment of the impacts of the proposed business and/or activity; (d.) an estimate of the magnitude of impact and critical impacts which will happen upon the execution of the proposed business and/or activity; (e.) a holistic evaluation on the incurred impacts to determine environmental feasibility or infeasibility;..."⁷²

Based on the "holistic evaluation" provision, the plaintiffs argued that, in light of the United Nations Framework Convention on Climate Change (UNFCCC) and recent climate science development, any EIA should have included climate change impacts of a proposed activity in its analysis; despite the absence of an explicit provision obliging so.⁷³ To do so in the absence of an explicit provision is also partly the government's duty in light of good governance principles (*asas-asas umum pemerintahan yang baik* / AAUPB).⁷⁴

The court, unfortunately, ruled in favor of the defendant. The court dismissed the plaintiffs' lawsuit, ruling that the latter lacked the legal standing to sue. The court reasoned that none of the plaintiffs had yet sustained any actual damage as the construction/operation of the proposed coal-fired steam power plant had not yet started. For that reason, the court decided that none of the plaintiffs' protected interests have been infringed, hence rendering the lack of legal standing to sue.⁷⁵ Regarding the merits of the plaintiffs' argument on climate change, the court did not deliberate further on the matter.

The *Celukan Bawang* case is indeed one of the first cases of its kind in Indonesia, i.e. the first EIA-related climate change litigation in Indonesia. Despite the unfavorable decision⁷⁶, *Celukan Bawang* is an illustrative example of a regulatory gap in the EIA analysis in Indonesia. There is no regulation yet in Indonesia that explicitly obliges an EIA study to include climate change impacts in its analysis, despite the ever-increasing dangers of the global climate change crisis. Consequently, businesses and commercial activities with potentially significant greenhouse gas emissions can operate with ease in Indonesia.

⁷⁰ Indonesia, *Ketut Mangkuwijaya and others v. Governor of Bali*, Case No. 2/G/LH/2018/PTUN.DPS. (Administrative Court of Denpasar, 2018).

⁷¹ *Ketut Mangkuwijaya and others v. Governor of Bali*, 17-20.

⁷² *Ketut Mangkuwijaya and others v. Governor of Bali*, 18.

⁷³ *Ketut Mangkuwijaya and others v. Governor of Bali*, 17-20.

⁷⁴ *Ketut Mangkuwijaya and others v. Governor of Bali*, 34-37.

⁷⁵ *Ketut Mangkuwijaya and others v. Governor of Bali*, 148-151.

⁷⁶ It is widely believed amongst climate change litigation scholars that winning or losing a climate change litigation case is less important than acknowledging its potential in raising social awareness towards climate change, which may contribute to a change in attitudes that could ultimately prove more effective in tackling a public interest problem than any set of legal changes would be. In the context of Indonesian climate change litigation trend, the *Celukan Bawang* case is one such example. Despite being a 'losing' case, it ultimately brought to light a crucial regulatory gap in the Indonesian regulation on EIA analysis which has never been made as explicitly before. See: Geetanjali Ganguly, Joana Setzer, and Veerle Heyvaert, 'If at First You Don't Succeed: Suing Corporations for Climate Change' (2018) 38(4) *Oxford Journal of Legal Studies* 841, 866-867.

b. Effluent vs. Ambient Standards: The Case of Legally-Compliant Environmental Pollution

An EIA is typically mandatory for large-scale business operations in Indonesia. It is typical because the activities these businesses engage in are most often associated with significant levels of environmental pollution. In that sense, an EIA serves as a form of pollution control towards these “polluting” activities. This is regulated by setting a quality standard on the wastes that these activities can discharge into the environment, known as effluent standards.

While the effluent standards contribute to curbing the amount of waste discharge and the level of environmental pollution, it is nevertheless inadequate. The EIA analysis should also consider the ambient quality of the environment media (e.g. air, watercourses, land areas, etc.) into which wastes are discharged. Unfortunately, EIA analysis has been consistently conducted without ever considering the ambient quality of the environment media, simply because there is no law regulating the ambient quality of the respective environment media. Consequently, serious environmental pollution may still happen even when there is legal compliance - i.e. within the effluent standard limits. The following case, the *Cikijing* case, illustrates the paradoxical problem of ‘legally-compliant environmental pollution’ in Indonesia.

On December 2015, a coalition of environmental organizations filed a lawsuit before the Bandung Administrative Court against three wastewater discharge permits (hereinafter referred to as the discharge permits) issued by the Regent of Sumedang to three textile factories (the defendants) allowing them to discharge their wastewater into the Cikijing River.⁷⁷ The plaintiffs, i.e. a coalition of environmental organizations, challenged the legality of the permits, arguing that the content of the permits violated the underlying laws, namely: i.) Environmental Law 2009; ii.) Government Regulation No. 82 of 2001 on the Management of Water Quality and Water Pollution Control; and iii.) Minister of Environment Regulation No. 1 of 2010 on Implementation of Water Pollution Control. More importantly, the plaintiffs also argued that the permits failed to consider the fact that the Cikijing river had been heavily polluted and damaged even before the issuance of those three respective discharge permits.

The Court ruled in favor of the plaintiffs and ordered the Regent to withdraw the discharge permits in question. Moreover, the Court in Cikijing ruled that the permits ignored the fact that the river has been heavily polluted and that the defendants had failed to consider the possible impacts from the permitted discharges to further exacerbate the already polluted river. Interestingly, the Court’s opinion emerged even though

⁷⁷ Indonesia, *Wahana Lingkungan Hidup Indonesia (WALHI), et. al. v. Regent of Sumedang, et. al.*, Case No. 178/G/2015/PTUN-BDG (Bandung Administrative Court, 2015).

each of the defendants were able to demonstrate that they had not violated the provincial emission limit value (*baku mutu air limbah* / **ELVs**). This rationale was also scrutinized by higher courts, namely the Jakarta High Administration Court⁷⁸, and the Indonesian Supreme Court⁷⁹, which both upheld and affirmed the Bandung Administrative Court decision. This makes it a valuable precedent regarding water pollution in Indonesia.

The *Cikijing* Case ruling demonstrated how the water pollution law in Indonesia has become paralyzed. Based on the case's ruling, one might wonder how it is possible that the government still allowed wastes to be discharged into a heavily polluted river. One might further ask how it is possible that the compliance with ELVs, also referred to as the effluent standards, does not guarantee a good quality of surface water medium. This problem results from issuing a waste discharge permit, known as *Izin Pembuangan Limbah Cair (IPLC)*, that failed to consider *Daya Tampung Beban Pencemaran (DTBP)* - also known as ambient standard - before issuing such a permit.

B. Off-gridding Indonesian Renewable Energy Market: Incentivizing Renewable Energy Businesses

One of the most effective ways to avoid further global warming is transitioning to a large-scale renewable energy supply system.⁸⁰ The greater the scale of the renewable energy supply, the cleaner the energy consumption will be. While the need for cleaner energy and that renewable energy supply system is a corollary response to such demand may seem a truism, the transition to large-scale renewable energy production relies significantly on the political will of governments.⁸¹ Sadly, Indonesia is falling behind in the race to transition to renewable energy as it lacks a clean energy landscape,⁸² and doesn't yet provide any of the necessary incentives to harvest the country's abundant sources of clean energy, including solar, wind, geothermal, mini/micro hydropower, and tidal power.

In terms of investment climate, Indonesia ranks 73 globally in the World Bank's Ease of Doing Business (EODB) ranking, surpassed by Malaysia (12), Thailand (21), and Vietnam (70). The reason behind Indonesia's low-rank⁸³ has to do with high contract enforcement costs and rigid employment regulation. Moreover, the EODB also indicated that Indonesia seems to be more restrictive to foreign direct investment than its three neighboring countries.⁸⁴ The deplorable foreign investment climate in Indonesia is regrettable since Indonesia has great renewable energy resources potential, which may attract foreign investors, particularly those committed to clean energy production and consumption.⁸⁵

⁷⁸ Indonesia, Regent of Sumedang, et. al. v. WALHI, et. al., Case No. 237/B/2016/PT.TUN.JKT (Jakarta High Administration Court, 2016).

⁷⁹ Indonesia, PT Kahatex, et. al. v. WALHI, et. al., Case No. 187 K/TUN/LH/2017 (Supreme Court of Indonesia, 2017).

⁸⁰ Kenneth Hansen, Christian Breyer, and Henrik Lund, 'Status and Perspectives on 100% Renewable Energy Systems' (2019) 175 *Energy* 471, 471.

⁸¹ See: Umut Uzar, 'Political Economy of Renewable Energy: Does Institutional Quality Make a Difference in Renewable Energy Consumption?' (2020) 155 *Renewable Energy* 591, 593. See also: Christopher Cooper, 'Physics Envy: Why Energy Policy is More Art Than Science' (2013) 6(1) *Journal of World Energy Law and Business* 67, 68.

⁸² Diwangkara Bagus Nugraha and Filda Citra Yudiantoro, 'Indonesia Lags on Renewable Energy, and Pays the Price' *The Interpreter* (13 January 2021), <https://www.lowyinstitute.org/the-interpreter/indonesia-lags-renewable-energy-and-pays-price>

⁸³ See: Dion Bisara, 'Indonesia Misses Ease of Doing Business Target' *Jakarta Globe* (25 October 2019), <https://jakartaglobe.id/business/indonesia-misses-ease-of-doing-business-target/>

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*

Comparing Indonesia with neighboring Southeast Asian countries, Indonesia's renewable energy capacity of 9 GW is only one-third of Vietnam's. As renewable energy capacity grew by more than 50% from 2014 - 2019 in Vietnam and Thailand, Indonesia only saw a 17% increase during the same period.⁸⁶ Moreover, the records show that in 2018 from the approximately 60,000 MW annual domestic electricity consumption, only 12% came from renewable energy sources, with the remainder sourced from coal (55%), gas (26%), and oil (7%).⁸⁷

One can, for example, refer to Nugraha and Yusgiantoro in arguing that Indonesia's low renewable energy power-generating capacity results from myriad policy issues, financing, and coal dependency, which incurs troublesome constraints for companies to source clean energy supply. As a result, Indonesia has limited options to supply clean energy to commercial and industrial consumers with less renewable energy capacity.⁸⁸ Nugraha and Yusgiantoro also highlighted the absence of a possibility for a direct power-purchase agreement (DPPA) scheme in the Indonesian energy policy, where customers can directly purchase electricity from private independent renewable energy producers as a critical laggard to expedite the transition to large-scale domestic renewable energy supply. Other Southeast Asian countries such as Thailand and Vietnam, for example, have now adopted the DPPA policy in their domestic energy policy; which has arguably increased the consumption of electricity sourced from renewable energy.⁸⁹ Another problem with Indonesia's renewable energy policy, as argued by El Discha, is the cap-price for energy purchase by PLN and the electricity commercial distribution monopoly by PLN.⁹⁰ In other words, it is necessary to off-grid the distribution of electricity to increase the consumption of electricity sourced from renewable energy. Off-gridding the distribution of electricity sourced from renewable energy allows renewable energy power companies to have greater profitability, hence incentivizing renewable energy business to flourish in the Indonesian energy market.

This paper also argues for off-gridding electricity distribution from PLN's monopoly. The following sub-section shall argue in what sense it is necessary to off-grid the distribution of electrical power, especially that which is sourced from renewable energy. In doing so, this paper provides a critical discussion on the commercial aspect of the renewable energy business and to what extent government intervention is necessary and when it is not.

⁸⁶ *Ibid.* See also: Tim Ha, 'Power Play—Who's Winning Southeast Asia's Renewables Race?' *Eco-Business* (31 July 2019), <https://www.eco-business.com/news/power-play-whos-winning-southeast-asias-renewables-race/>

⁸⁷ Kate Walton, 'Indonesia Should Put More Energy Intro Renewable Power' *The Interpreter* (19 August 2019), <https://www.lowyinstitute.org/the-interpreter/indonesia-s-should-put-more-energy-renewable-power>

⁸⁸ Nugraha & Yusgiantoro, 'Indonesia Should Put...'

⁸⁹ *Ibid.*

⁹⁰ Fadhila El Discha, 'Indonesia Needs a Better Clean Energy Policy' *Penguin Perspectives Blog* (07 April 2020), <https://www.southpole.com/sv/blog/indonesia-needs-a-better-clean-energy-policy>

Promoting the Transition to Renewable Energy through Off-Grid Power Distribution

Society does not always naturally gravitate towards the “best” technology.⁹¹ In the case of the transition to renewable energy, most people do not promptly prefer to consume electricity produced from renewable energy sources just because it now becomes necessary as one of the most effective ways to combat climate change. Just because one alternative presents itself as the logical solution to pursue does not mean that everyone will follow in that direction.⁹² Such a problem seems to also be the case with renewable energy transition.

People, in general, are more concerned with their short-term interests than those in the long-term, and individual interests over collective ones.⁹³ Choosing cheaper electricity, though sourced from fossil-fueled energy production, appears to be a better economic choice than paying for more expensive electricity, despite being sourced from renewable energy.

At least, this is our almost natural purchasing behavior when faced with alternative products. To influence people's behavior in choosing cleaner energy alternatives, policies and regulations should make such choice cheaper than the otherwise. In other words, policies and regulations should, and indeed have the ability to, change and improve the society's choice architecture when choosing between alternatives.⁹⁴

⁹¹ Michael Lenox and Aaron Chatterji, *Can Business Save the Earth? – Innovating Our Way to Sustainability* (Stanford University Press, 2018), 35.

⁹² Recent developments in behavioral economics suggest that people are generally not always the best judge for themselves. People often make poor choices in many different life settings. Moreover, in some areas of public life - e.g. social security, national healthcare, etc. - people, not only laymen in general but also qualified experts, may experience biases in their judgments. Behavioral economics therefore suggests that policy-makers should become the choice architectures designing the landscape of options available to people and help them choose better for themselves. See generally: Richard Thaler and Cass Sunstein, *Nudge: Improving Decisions about Health, Wealth and Happiness* (Penguin Books, 2008 & 2009), 1-6; Daniel Kahneman, Olivier Sibony, and Cass R. Sunstein, *Noise: A Flaw in Human Judgment* (William Collins, 2021), 1-22. See also: Kazuhisa Takemura, *Escaping From Bad Decisions: A Behavioral Decision-Theoretic Perspective* (Elsevier Inc., 2021).

⁹³ Daniel J. Fiorino, *A Good Life on a Finite Earth: The Political Economy of Green Growth* (Oxford University Press, 2018), 74. ⁹³ Daniel J. Fiorino, *A Good Life on a Finite Earth: The Political Economy of Green Growth* (Oxford University Press, 2018), 74.

⁹⁴ Cass Sunstein, *Behavioral Science and Public Policy* (Cambridge University Press, 2020), 6. See also: Cass Sunstein, *How Change Happens* (MIT Press, 2019), 67-85.

⁹⁵ A number of causes can be argued to explain why fossil-fuel usage appears to be, apparently, cheaper than renewable energy sources. A report by International Renewable Energy Agency (IRENA) in 2020, for example, suggested that continuous and greater subsidies by governments for fossil-fuels have made fossil-fuels more affordable compared to power produced from renewable energy sources. In the case of Indonesia, subsidies for fossil-fuels were initially aimed to provide affordable energy to the poor, which is also a constitutional mandate to the government of Indonesia. However, it is often the case when consumers are buying subsidized goods, consumers are not always fully aware of the cost they are paying. Regarding to fossil-fuels, these unaccounted costs are the externalities impacting the larger public, such as air pollution and large amounts of greenhouse gas emissions. These are some of the reasons, arguably the key reasons, underpinning the affordability of power generated from fossil-fuels compared to those generated from renewable energy sources. See: Michael Taylor, 'Energy Subsidies: Evolution in the Global Energy Transformation to 2050' Technical Paper 1/2020 (IRENA, 2020); Marcel Alers and Benjamin Jones, Fossil Fuel Subsidy Reforms: Lessons and Opportunities (UNDP, 2021), 23; Selim Karkour, et. al., 'External-Cost Estimation of Electricity Generation in G20 Countries: Case Study Using a Global Life-Cycle Impact-Assessment Method' (2020) 12 Sustainability 1-35.

⁹⁶ Lennox & Chatterji (n 91), 35.

⁹⁷ *Ibid.*, 36.

⁹⁸ *Ibid.*, 37.

⁹⁹ *Ibid.*, 39.

¹⁰⁰ *Ibid.*, 46.

The problem in Indonesia is that people, specifically electricity power consumers, are not given the alternative to choose between electricity power produced from fossil-fuels vis-à-vis renewable energy. The commercial distribution of electricity in Indonesia today is monopolized by PLN. Such a monopoly also affects the business prospects of potential renewable energy investors in Indonesia. Given the lack of financial, fiscal and policy incentives to promote renewable energy investment in Indonesia, the cost and uncertainty of investing in renewable energy is comparatively more expensive compared to fossil fuel⁹⁵, and the energy produced can only be sold to a single purchaser at a rate exclusively determined by the purchaser, many renewable energy investors are understandably deterred. Like most early technological innovations, renewable energy technologies will initially be inefficient. Sometimes technologies with greater sustainability yield are not getting leverage because an incumbent technology is the dominant design.⁹⁶ Another reason worth pointing out is that new technologies will only get better and become more efficient over time as more effort is made for improvement⁹⁷ Conversely, new technologies may be trailing and not improving for years or even decades if no effort is made for further innovation. Moreover, like many other technologies with widespread usage, renewable energy technologies will flourish once it has achieved a network externality. Network externality in economics is usually referred to situations where the value of a good or service increases as others consume the same good or service.⁹⁹

However, improving the efficient usage of a given technology and its network externality relies greatly on the ability of inventors, entrepreneurs, and corporate innovators to appropriate the gains of their investment in the research and development (R&D) of such technology. According to Lennox & Chatterji, at least four tests that investors, entrepreneurs, and corporate innovators should satisfy to ensure optimal appropriation on their R&D investments.

First, a renewable technology business should create more value for customers than alternative options, also called the "value test." Second, the said technology should also deliver on the value proposition or the "execution test." Third, a renewable technology business should scale in meeting rising demand and displacing entrenched incumbents, also known as the "scalability test." Fourth and lastly, any investor, entrepreneur, and corporate innovator need to be able to appropriate some of their gains from their innovation to justify their effort, which is the "defensibility test."¹⁰⁰

This paper will not embark on explaining the finer details of each of these tests. Instead, a general remark should suffice in saying that delivering well on each of those tests relies greatly on policies and regulations supporting the proliferation of mass renewable energy production and consumption. In this regard, according to Krugman, governments should begin to think about combining positive incentives like tax credits and not-too-onerous regulations that promote a transition to a large-scale renewable energy system.¹⁰¹ The first step to enact the “not-too-onerous-regulation,” also arguably one of the easiest, is to allow an off-grid distribution of electricity power sourced from renewable energy production.

Allowing for a free renewable energy market incentivizes businesses to produce greater energy production. In addition, it also encourages them to invest more in renewable energy technologies R&D. This will allow renewable energy businesses to gradually meet all the four tests that a given technology should meet to flourish. Allowing an off-grid production and commercial distribution of electricity sourced from renewable energy is also the first step to creating a domestic energy ecosystem wholly dependent on renewable energy sources.

IV. What Can (Foreign) Investors Do to Promote Stronger Environmental Safeguards?

This paper has identified some regulatory gaps in the Indonesian environmental law regime in the preceding section. However, while it appears that the prospects for a large-scale renewable transition seem to rely on the state of policies and regulations completely, the possibility of improving the quality of environmental safeguards does not necessarily share a similar dismal future. In this regard, one can look at the potential that investment activities have to improve the quality of environmental safeguard when the law fails to do so.

Environmental law is in many ways also economic law, in the sense that a large body of environmental law governs the operation of business activities. By the same token, investment law is also in many ways environmental law, said Viñuales, “to the extent that investment disciplines, properly interpreted and applied, may help channel much-needed resources towards pro-environment projects.”¹⁰² Therefore, it is not wishful to think of a possible mutual symbiosis between environmental law and investment law and the more significant part of business law. Morgera even argued that investment activities provide the opportunity for corporations to play an essential role in initiating and expediting the transition to environmentally sustainable business practices.

¹⁰¹ Paul Krugman, *Arguing with Zombies: Economics, Politics, and the Fight for a Better Future* (W. W. Norton & Company, 2021), 340

¹⁰² Jorge E. Viñuales, *Foreign Investment and the Environment in International Law* (Cambridge University Press, 2012), 2.

Corporations need only do what they do best through “innovation, creativity, and adaptation to new conditions and shaping new markets and new production possibilities.”¹⁰³ The following section discusses how commercial activities can play a meaningful role in shaping legal norms of environmental protection when State-made law fails.¹⁰⁴

Empowering Business Actors and Third-Parties as Surrogate Regulators: The Case of Smart Regulation

The idea of smart regulation refers to “a form of regulatory pluralism that embraces flexible, imaginative, and innovative forms of social control.”¹⁰⁵ Smart regulation utilizes governments as well as businesses and third parties in the norm-making process. In addition, it embraces self-regulation and co-regulation, using commercial interests and non-governmental organizations as regulatory surrogates while simultaneously improving the effectiveness and efficiency of more conventional forms of direct government regulation.¹⁰⁶

Smart regulation proceeds from the rationale that it is often better to combine multiple, as opposed to single, policy instruments and involve a broader range of regulatory actors to produce a more superior regulation.¹⁰⁷ As a concept, smart regulation is an alternative to traditional thinking about governance, where regulation is conceived as a bipartite process involving the government (as regulator) and businesses (as the regulated community).¹⁰⁸ Conversely, smart regulation unearths the potentials of informal mechanisms of social controls, which may prove to be more important than formal ones. Smart regulation, therefore, suggests shifting our focus to understanding a broader range of regulatory influences and interactions, including international standards organizations; trading partners and supply chain; commercial institutions and financial markets; peer-pressure and self-regulation through industry associations; internal environmental management systems and culture; and civil society in multiple different forms.¹⁰⁹

There are at least five basic principles of smart regulation according to Gunningham & Sinclair, namely:¹¹⁰

- i. Complementary instrument mixes are preferable over single-instrument approaches. But, at the same time, avoiding some regulatory instrument mixes is necessary to prevent ineffective and inefficient policy design.
- ii. The virtues of parsimony: less interventionist measures are preferable in the first instance of violation.

¹⁰³ Elisa Morgera, *Corporate Environmental Accountability in International Law*, 2nd Ed. (Oxford University Press, 2020), 6

¹⁰⁴ This is also known in legal scholarship as transnational legal ordering or transnational law, where the role of States is decentered in (legal) norm-making. See, for example: Gregory Shaffer, ‘Theorizing Transnational Legal Ordering’ (2016) *12 Annual Review of Law and Social Science* 231. See also: Nicole Roughan, *Authorities: Conflicts, Cooperation, and Transnational Legal Theory* (Oxford University Press, 2013), 72-74.

¹⁰⁵ Neil Gunningham and Darren Sinclair, ‘Smart Regulation’ in Peter Drahos (ed.), *Regulatory Theory: Foundations and Applications* (ANU Press, 2017), 133. Gunningham and others had also conducted another empirical research on collaborative governance between State and non-State actors (e.g. local communities, businesses, etc.) that goes beyond both traditional conception of command-and-control regulation and market-based incentives. Their research was conducted in New Zealand. The research found how blended collaboration, participation, deliberation between these State and non-State actors prove to be more effective and efficient in promoting environmental sustainability rather than relying on the one-sided active government control and intervention. See also: Cameron Holley, Neil Gunningham, and Clifford Shearing, *The New Environmental Governance* (Earthscan, 2012).

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*, 134.

¹¹⁰ *Ibid.*, 134-135.

- iii. Having an escalated response up an instrument pyramid, from the less-interventionist measures (e.g. information-notification) to the most-interventionist measures (e.g. criminal penalty, license revocation, etc.), is recommended to build better regulatory responsiveness, increasing the dependability of outcomes through instrument sequencing, and providing early warning of instrument failure. In doing so, an escalated response utilizes not only government bodies but also business and third parties.
- iv. Empowering third parties (both commercial and non-commercial) to act as surrogate regulators, thereby achieving better environmental outcomes at less cost and freeing up scarce regulatory resources, so that in circumstances where no alternatives to direct government intervention are available, redeploying these resources becomes a viable alternative.
- v. Maximizing opportunities for win-win outcomes by expanding the boundaries within which opportunities are available and, encouraging businesses to go 'beyond compliance' within existing legal requirements.

For the writing of this paper, point iv. and v. from the five basic principles of smart regulation are worth noting. Smart regulation opens the possibility for non-state actors—e.g. business entities, industrial associations, financial institutions and banks, etc. - to influence the behavior of the regulated communities through autonomous norm-making. A notable example of such autonomous norm-making is the Roundtable on Sustainable Palm Oil (RSPO).

The RSPO was established as a nonprofit association in 2004 under Swiss law and has, since 2008, managed the sustainability standards for palm oil production.¹¹¹ The initiative to establish RSPO began informally as a series of meetings between the German Chapter of the Worldwide Fund for Nature (WWF), a trade association of Malaysian palm oil producers, Unilever, and other prominent Western retailers and Asian producers.¹¹² Together, these initial actors then began to form what is known as RSPO today as a global initiative to “transform the markets by making sustainable palm oil the norm.”¹¹³

Today, the RSPO is perhaps the global standard of sustainable palm oil industry that has not only influenced how businesses in this industry sector operate but has also inspired governments worldwide to adopt the RSPO standards into their domestic regulation. One of the reasons why actors comply with the RSPO standards - despite being made by a group of non-State actors and lacking enforcement mechanisms (e.g. punishment, etc.) - is due to the fact that RSPO carries the reputation of a leading source of best practices for the palm oil industry, hence being part of the RSPO gives a good image for business actors engaging in the palm-oil industry.¹¹⁴

¹¹¹ Phillip Paiement, *Transnational Sustainability Laws* (Cambridge University Press, 2017), 131.

¹¹² *Ibid.*, 132.

¹¹³ *Ibid.*

¹¹⁴ *Ibid.*, 147-148

The RSPO is just one of the many examples of smart regulation. The critical lesson from highlighting RSPO as an example is to spotlight the potentials that non-state actors, especially those engaging in the commercial and extractive industry, have in setting norms as a means of an alternative mode of social control independent from state-made laws and regulations.

In the case of promoting environmental safeguards, banks can now begin to impose certain environmental certification standards on lenders as part of the financing agreement. In addition, businesses and industries can establish associations and create sustainability standards that can be a role model for best business practices for a given business sector. Foreign investors can also impose a range of superior environmental standards on their local business partners as a condition for investment or partnership. These are just a few of the many examples of measures that businesses can initiate to promote environmental sustainability when State laws have less stringent environmental sustainability standard(s). In that sense, private initiatives developed by commercial and industry actors have the potential to close the regulatory gaps existing in the Indonesian environmental law - specifically, for example, the case of AMDAL.

V. Conclusion

With the ever-increasing global threat of climate change, countries worldwide should begin to think and strategize their domestic policies of transiting to a large-scale renewable energy supply system. In that regard, this paper aims to map the regulatory framework in Indonesian environmental law, (foreign) investment law, and energy law.

Section III highlights some critical problems in the Indonesian environmental law and energy law regime based on the regulatory framework mapping. First, the Indonesian Environmental Impact Assessment (EIA) is problematic on two counts: it does not regulate climate change impacts and fails to account for the ambient standard of the environmental medium in its assessment. Second, the infrastructure for a large-scale domestic renewable energy supply system cannot be commercially lucrative until sufficient incentives are provided to encourage large scale investment in the sector, and while *Perusahaan Listrik Negara* (PLN) continue to enjoy a monopoly on commercial distribution of electricity.

Against the problems highlighted in Section III, while acknowledging that there is not much that investors can do yet to improve the renewable energy landscape in Indonesia - due to the regulatory capture supporting PLN's monopoly of the domestic commercial distribution of electricity

power - Section IV explores the potential of investment as a catalyst to promote stronger environmental safeguards in commercial activities in Indonesia's energy sector. Finally, section IV lays down the theoretical framework of smart regulation, arguing and demonstrating how businesses as non-state actors can assume norm-making functions as surrogate regulators.



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