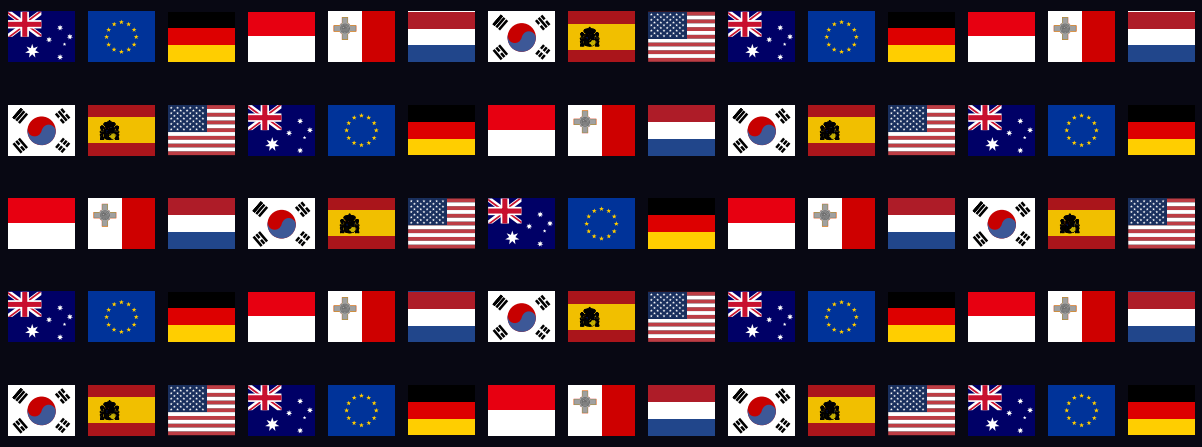
CLIMATE REGULATION

Indonesia



LEXOLOGY
Getting The Deal Through

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Quick reference guide enabling side-by-side comparison of local insights, including the main climate regulations, policies and authorities; national emission levels, limits and emission reduction projects; emission allowances and trading; energy and non-energy sector regulation; renewable energy consumption, policy and general regulation, including carbon capture and storage; climate matters in M&A transactions; and recent trends.

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MAIN CLIMATE REGULATIONS, POLICIES AND AUTHORITIES

International agreements

Do any international agreements or regulations on climate matters apply in your country?

The United Nations Framework Convention on Climate Change, its Kyoto Protocol and Paris Agreement apply in Indonesia. Indonesia ratified the three instruments under Law No. 6 of 1994 regarding the Ratification of the United Nations Framework Convention on Climate Change, dated 1 August 1994 (UNFCCC); Law No. 17 of 2004 regarding the Ratification of the Kyoto Protocol to the United Nations Framework Convention on Climate Change, dated 28 July 2004; and Law No. 16 of 2016 regarding the Ratification of the Paris Agreement to the United Nations Framework Convention on Climate Change, dated 24 October 2016. In compliance with its obligation as a Non-Annex I Party, Indonesia also submitted its second Biennial Update Report on 21 December 2018.

International regulations and national regulatory policies

How are the regulatory policies of your country affected by international regulations on climate matters?

As a party to the UNFCCC, the Kyoto Protocol and Paris Agreement to the UNFCCC, Indonesia has shaped its national regulatory policies based on its international pledge in its Nationally Determined Contribution (NDC) to reduce greenhouse gas (GHG) emissions by 29 per cent to 41 per cent of the business-as-usual scenario by 2030. The laws and regulations in Indonesia on climate matters (eg, Presidential Regulation No. 61 of 2011 on National Action Plan for the Reduction of Emissions of Greenhouse Gases (PR 61/2011) and Presidential Regulation No. 71 of 2011 on the Implementation of a National Inventory of Greenhouse Gases (PR 71/2011)), refer to the UNFCCC, its Conferences of the Parties results, and the NDC as considerations in enacting these regulations.

Indonesia also has implemented a Reducing Emissions from Deforestation and Forest Degradation (REDD+) Program with international support.

Main national regulatory policies

Outline recent government policy on climate matters.

To achieve its NDC target to reduce GHG emissions, the government of Indonesia recently enacted a carbon tax and carbon economic value, governed under Law No. 7 of 2021 regarding Harmonized Tax (the Harmonized Tax Law) and Presidential Regulation No. 98 of 2021 regarding Carbon Economic Value (the Carbon Regulation), respectively, in addition to other existing regulations and policies (eg, PR 61/2011, PR 71/2011) and climate change information systems to monitor and report GHG emissions, such as the National Greenhouse Gases Inventory System and the National Registry System on Climate Change Control.

Other existing national regulations and policies for specific sectors, such as the energy, industrial processes and product use, agriculture and forestry, and waste sectors, among others, also have been enacted to govern climate matters in Indonesia.

Going forward, we project that the Indonesian government will issue other implementing regulations on climate change (eg, implementing regulations for carbon economic value), which will address carbon market mechanisms, among other topics.

Main national legislation

Identify the main national laws and regulations on climate matters.

Other than the laws enacted to ratify international climate conventions, Indonesia does not have a main law that specifically regulates climate matters. As of this writing, Indonesia still relies on its environmental laws as the main framework to help mitigate climate change. These include Law No. 32 of 2009 regarding Environmental Protection and Management, as amended by Law No. 11 of 2020 on Job Creation, and Law No. 41 of 1999 regarding Forestry, as amended by Law No. 11 of 2020 on Job Creation, including their implementing Government Regulations (Government Regulation No. 23 of 2021 regarding Organization of Forestry and Government Regulation No. 22 of 2021 regarding Organization of Environmental Protection and Management, respectively). There also are other regulations concerning agriculture, peatlands, energy and transportation, industry and waste management, among others.

National regulatory authorities

Identify the national regulatory authorities responsible for climate regulation and its implementation and administration. Outline their areas of competence.

There are three national regulatory authorities responsible for the implementation and monitoring of climate regulations in Indonesia, which are the Minister of Environment and Forestry (MOEF), the Environmental Fund Management Agency (BPDLH), and the Peatland Restoration Agency (BRG).

MOEF is the chief ministry/institution responsible to establish and implement policies regarding climate change impact control and ozone layer protection. Any matters related to climate change will be governed and supervised by the MOEF; this includes submission of Indonesia's NDC and Biennial Update Report under the UNFCCC.

The BPDLH is a fund management agency under the Ministry of Finance (MOF) and is the government agency responsible to facilitate a funding system for the implementation of GHG reduction projects from the national to sub-national levels. All climate change funding, including mobilisation and placement of fund resources, will be managed and overseen by the BPDLH.

And the BRG is a non-ministerial agency formed in 2016 that reports directly to the President. Its main mission is to maintain and restore peat ecosystems, focusing on sub-national peat projects in Kalimantan, Sumatra and Papua.

In addition to the three above-mentioned government institutions, the MOF governs any climate change matters related to fiscal and tax instructions. The MOF was the government institution that took the lead in pushing for the implementation of a carbon tax in Indonesia. Carbon tax provisions are governed under the Harmonized Tax Law. Carbon emissions having a negative impact on the environment will be subject to a minimum carbon tax of 30 rupiah per kilogram of CO2e or other equivalent measurement unit (equivalent to around US$2.1 per tCO2e).

GENERAL NATIONAL CLIMATE MATTERS

National emissions and limits

What are the main sources of emissions of greenhouse gases (GHG) (or other regulated emissions) in your country and the quantities of emissions from those sources? Describe any limitation or reduction obligations. Do they apply to private parties in your country?

Based on Indonesia's Second Biennial Update Report (BUR) under the United Nations Framework Convention on Climate Change (Second Biennial Update), the main sources of GHG emissions in Indonesia in 2016 were, by order

from highest:

- agriculture, forestry and other land use sector;
- energy sector;
- waste sector; and
- industrial processes and product use (IPPU) sector.

The AFOLU sector contributed 752,138 Gg CO 2 e (51.59 per cent), the energy sector contributed 538,025 Gg CO 2 e (36.91 per cent), the waste sector contributed 112,351 Gg CO 2 e (7.71 per cent), and the IPPU sector 55,260 Gg CO 2 e (3.79 per cent). Indonesia's total 2016 GHG emissions were 1,457,774 Gg CO 2 e (this data only reflects the GHG emissions for CO 2 , CH 4 and N 2 O). As at the time of writing, Indonesia has not submitted its third BUR, therefore there is no official data on GHG emissions that is more current than 2016.

As a party to the Paris Agreement, the Indonesian government has the international obligation to reduce its GHG emissions according to its Nationally Determined Contribution (NDC) target. This obligation includes submission of a progress report on climate change mitigation and adaptation to the UNFCCC every two years for the BUR.

To date, there are no specific GHG emission limitation or reduction obligations that apply to private parties in Indonesia.

National GHG emission projects

Describe any major GHG emission reduction projects implemented or to be implemented in your country. Describe any similar projects in other countries involving the participation of government authorities or private parties from your country.

There have been several major GHG emission reduction projects implemented in Indonesia. Under the Kyoto Protocol, there were approximately 47 Clean Development Mechanism (CDM) projects as of 2018 in Indonesia. CDM projects promote carbon emission reduction through the sale of Certified Emission Reduction credits to countries with emission-reduction commitments. Examples of CDM projects implemented in Indonesia include the Bekasi Power Combined Cycle Power Plant Project and the Multi Nitro Indonesia Nitrous Oxide Abatement Project.

As deforestation and forest degradation is the major source of emissions in Indonesia, the government of Indonesia focussed its policy on the implementation of the Reducing Emissions from Deforestation and Forest Degradation (REDD +) Program by establishing the Presidential REDD+ Agency. REDD+ projects in Indonesia also are supported by international funding, including approximately US$1 billion from the Norwegian government, among others. REDD+ projects include result-based payment for carbon reduction yields (ie, the Bujang Raba Community Payment for Ecosystem Services Project, Project Forest and Climate Change Programme, and the Katingan Peatland Restoration and Conservation Project).

In the renewable energy sector, the government of Indonesia plans to have at least 23 per cent of its total primary energy supply generated by renewable sources by 2025. The government has released several policies including the National Energy Policy (KEN) 2014–2050 in support of this goal.

Indonesia will also implement carbon tax policies and carbon trading mechanisms based on the Carbon Regulation and the Harmonized Tax Law.

DOMESTIC CLIMATE SECTOR

Domestic climate sector

Describe the main commercial aspects of the climate sector in your country, including any related government policies.

The commercial aspects of the climate sector in Indonesia are mostly driven by private sector investment through international voluntary carbon trading schemes, eg, Verified Carbon Standard issued by Verra, Gold Standard Credits or Voluntary Emission Reductions issued by Gold Standard, and Certified Emissions Reductions issued under the Clean Development Mechanism under the Kyoto Protocol.

There are several ongoing forestry and renewable energy projects that have been registered and verified by Verra. The Sumatra Merang Peatland Project, Rimba Raya Biodiversity Reserve Project and Katingan Peatland and Restoration and Conservation Project have managed to reduce emissions from the agriculture, forestry and other land use sectors and sold their emissions reductions to other international stakeholders. In the renewable energy sector, the 55.5MW Natural Gas Power Generation Project at Batu Aji Village, Riau Islands, the Mobuya Mini Hydro Power Plant 3 X 1,000KW North Sulawesi, Lahendong Unit 5 and Unit 6 Geothermal Project, and the 50MW Sipansihaporas Hydro Power Plant, North Sumatra, among others, have registered their renewable sources.

Other types of sustainable projects (eg, waste collection and waste recycling) are in the process of verifying and validating their plastic credits.

The government of Indonesia will impose carbon tax and carbon economic value regulations. Under the Carbon Regulation, the government intends to create national carbon market schemes.

GENERAL GHG EMISSIONS REGULATION

Regulation of emissions

Do any obligations for GHG emission limitation, reduction or removal apply to your country and private parties in your country? If so, describe the main obligations.

To date, there is no specific GHG emission limitation, reduction or removal that applies in Indonesia. The Indonesian government recently enacted the Carbon Regulation. The Carbon Regulation acknowledges the term 'Emission Ceiling,' which is defined as the highest emission level approved for every sector and business and/or activity. The calculation of the Emission Ceiling will be based on the GHG sectoral baseline, sectoral NDC target, inventory of GHG and the target achievement period.

Notwithstanding the foregoing, the Minister of Environment and Forestry (MOEF) has issued several regulations to control pollution from certain sectors. MOEF Regulation No. 11 of 2021 regarding emission quality standards for Gensets does not provide a maximum emission load, but it does require business actors to calculate the emission load by using the manual method through laboratory testing. Other industries, such as pulp and paper, and oil and gas, are required to monitor their emissions and input the data to the Information on Continuous Industrial Emission Monitoring System.

GHG emission permits or approvals

Are there any requirements for obtaining GHG emission permits or approvals? If so, describe the main requirements.

There are no requirements for obtaining GHG emission permits or approvals under the prevailing regulations.

Nonetheless, in general, business actors are required to obtain an environmental licence issued by the Online Single Submission system. The type of licence depends on the risk level of a business activity (ie, low, medium and high risk). See the environmental questionnaire for elaboration.

Oversight of GHG emissions

How are GHG emissions monitored, reported and verified?

GHG emissions are monitored, reported and verified through the National Registration System (SRN) that was first launched in November 2016. The SRN is regulated under MOEF Regulation No. P.71/MENLHK/SETJEN/KUM.1/12/2017 of 2017 regarding the Implementation of the National Registry System Controlling Climate Change (MOEF Reg. 71/2017) enacted on 31 January 2018. This regulation sets forth that the SRN operates to avoid double counting and to implement the principles under the Paris Agreement.

The SRN regulates registration and certification for all types of climate change actions (eg, adaptation actions, which include food security, energy independence, water security, health, municipal and rural civilisations, infrastructure, coast and small islands, and ecosystem security, and mitigation actions, which include energy, land use, land use change and forestry, agriculture, industrial process and product use and sewage, among others).

GHG EMISSION ALLOWANCES (OR SIMILAR EMISSION INSTRUMENTS)

Regime

Is there a GHG emission allowance regime (or similar regime) in your country? How does it operate?

Indonesia does not have a specific regime for GHG emission allowance. However, the Carbon Regulation aims to govern the procedure to set the baseline for GHG emissions, which shall be a determining factor to stipulate climate change mitigation targets. The Carbon Regulation introduces the term 'Emission Ceiling', the limit for each sector that will be further determined by each sectoral ministry.

Registration

Are there any GHG emission allowance registries in your country? How are they administered?

Although a GHG emission allowance regime has yet to be determined, Indonesia has launched the SRN to register GHG emissions, as regulated under MOEF Reg. 71/2017. This is in line with the principles in the Carbon Regulation, which stipulates that the SRN has the function:

- to act as government recognition for the contribution of carbon economic value to achieve the NDC targets;
- as a data and information system for mitigation actions and implementation of carbon economic value;
- to avoid double counting of mitigation actions; and
- to help trace carbon unit transfers and utilisation. SRN facilitates registration for all sorts of climate change mitigation and action, including REDD+ initiatives.

Project developers shall register their projects with the SRN via http://ditjenppi.menlhk.go.id/srn . The data will then be validated by the SRN administrator. Following the validation, the administrator shall issue a registry number and the projects shall be verified. The verification process is based on the procedures set out in sectoral regulations and

pursuant to ISO standards. In addition, the MOEF may issue certificates of appreciation to verified contributors of climate change projects.

Obtaining, possessing and using GHG emission allowances

What are the requirements for obtaining GHG emission allowances? How are allowances held, cancelled, surrendered and transferred? Can rights in favour of third parties (eg, a pledge) be created on allowances?

Indonesia has no requirements for parties to obtain GHG emission allowances, therefore rules for how allowances are held, cancelled, surrendered and transferred do not exist. The Carbon Regulation does not recognise any type of emission allowances, but rather a certain emission baseline with which parties would be required to conform.

TRADING OF GHG EMISSION ALLOWANCES (OR SIMILAR EMISSION INSTRUMENTS)

Emission allowances trading

What GHG emission trading systems or schemes are applied in your country?

There are no provisions or specific regulations regarding emission allowances trading. The government of Indonesia, under the National Climate Change Committee (NCCC), did at one time plan to launch a Voluntary Carbon Market. In October 2013, the NCCC issued a handbook to introduce a carbon trading market scheme in Indonesia. However, the carbon market was never launched and the NCCC was dissolved in 2015.

Notwithstanding the foregoing, the Carbon Regulation recognises and regulates a carbon market. Domestic and international carbon trading shall be done through emission trades and emission offsets. The Carbon Regulation proposes requirements for both domestic and international carbon trading.

Trading agreements

Are any standard agreements on GHG emissions trading used in your country? If so, describe their main features and provisions.

There are no standard agreements on GHG emissions trading used in Indonesia. For voluntary carbon trading schemes by private sectors, the arrangement is a business-to-business agreement and there are no standardised agreements required by applicable laws and regulations.

SECTORAL REGULATION

Energy sector

Give details of (non-renewable) energy production and consumption in your country. Describe any regulations on GHG emissions. Describe any obligations on the state and private persons for minimising energy consumption and improving energy efficiency. Describe the main features of any scheme for registration of energy savings and for trade of related accounting units or credits.

Indonesia's energy mix consists of approximately 66 per cent fossil fuels consisting of refined petroleum, coal, gas and other non-renewable energy sources. Energy is consumed to meet the demands of the transportation, industry, household and commercial sectors. The energy sector is the second-highest source of GHG emissions in Indonesia.

The general national strategy to minimise energy consumption is governed under PR 61/2011, PR 71/2011 and the National Energy Policy (KEN) 2014–2050. There is no specific GHG emissions limitation to minimise energy consumption. However, the government aims to impose a carbon tax and emissions ceiling through the Harmonized Tax Law and Carbon Regulation, respectively.

Other sectors

Describe, in general terms, any regulation on GHG emissions in connection with other sectors.

The general regulations on GHG emissions in connection with other sectors are:

- PR 61/2011 regarding the National Action Plan for Reduction of GHG Emissions, which sets out specific mitigation and adaptation action plans for the agriculture, forestry and peat land, energy and transportation, industry and waste management sectors;
- PR 71/2011 regarding the Implementation of the National GHG Inventory, which mandates the implementation of a national inventory system for GHG in the above-mentioned sectors; and
- Presidential Regulation No. 18 of 2020 regarding National Mid-Term Development Plan 2020–2024 (PR 18/2020), which sets out Indonesia's GHG emissions targets in several key sectors, including forestry, peat land, agriculture, energy, transportation, industry and waste management.

In general, we note that there is a lack of sectoral regulations governing GHG emissions in specific sectors. Nonetheless, for the energy sector, the government has issued the National Energy Policy (KEN) 2014–2050 and Minister of Energy and Mineral Resources (MEMR) Regulation No. 22 of 2019 regarding Procedure for the Implementation of GHG Inventory and Mitigation in the Field of Energy. This MEMR Regulation concerns inventory, reporting, action plans and stakeholders for the mitigation of GHG emissions in the energy sector.

RENEWABLE ENERGY AND CARBON CAPTURE

Renewable energy consumption, policy and general regulation

Give details of the production and consumption of renewable energy in your country. What is the policy on renewable energy? Describe any obligations on the state and private parties for renewable energy production or use. Describe the main provisions of any scheme for registration of renewable energy production and use and for trade of related accounting units or credits.

Until mid-2020, the share of renewable energy in Indonesia's total primary energy supply had only reached 10.9 per cent. Coal-fired power plants still dominate the supply of electrical energy in Indonesia, while renewable energy power plants account for 14.69 per cent of the total national installed power generation capacity. Hydropower and geothermal power account for a majority of the renewable energy mix.

GR 18/2020 includes targets and strategies to strengthen economic resilience and to strengthen infrastructure to support economic development, which includes a discussion on energy. Pursuant to the National Mid-Term Development Plan, the government plans to reach a renewable energy share of 23 per cent by 2025, a goal also outlined in Indonesia's Nationally Determined Contribution (NDC). To achieve energy efficiency, the government plans to increase the efficiency of energy and electric power utilisation by:

- developing an energy service company;
- expanding, rehabilitating and increasing the capacity of the transmission and distribution system;

- developing information management and data control systems;
- developing and utilising smart grid technology; and
- utilising high-efficiency and low-emission or HELE technology.

To express its commitment on renewable energy, Indonesia released the National Energy Policy (KEN) 2014–2050, which is a guideline to provide direction for national energy management to achieve national energy independence and security, supporting sustainable national development. Based on the KEN, the government plans to maximise the use of renewable energy, minimise the use of petroleum, optimise the use of natural gas and new energy (such as coal bed methane, liquified coal, gasified coal, hydrogen and nuclear), and use coal as a mainstay of national energy supply.

In the electricity sector, PT Perusahaan Listrik Negara (PLN), the Indonesian state-owned electricity enterprise has a monopoly on electricity distribution in Indonesia, recently introduced the Renewable Energy Certificate programme, aiming to increase awareness of renewable energy. Power producers will receive a certificate for every one megawatt-hours of renewable energy-based electricity they produce. Such certificates are tradeable and can be used by companies to offset their carbon footprint.

Wind energy

Describe, in general terms, any regulation of wind energy.

Wind power plants generating power supply for the public interest is considered a high-risk business pursuant to the recent risk-based licensing categories under Government Regulation No. 5 of 2021 regarding Risk-Based Licensing (GR 5/2021) and it is necessary to obtain a business licence for electricity supply for public purpose. The term 'business licence' replaces the previously applicable business licence for power supply business activities. Power producers apply to the Minister of Energy and Mineral Resources (MEMR) for a business licence online via the Online Single Submission system.

The prerequisites for a power producer to obtain a business licence for power supply for public purpose include the fulfilment of several administrative, environmental and technical commitments, as follows.

- Feasibility study of the power generation business that contains, among other things:
  - financial feasibility study;
  - operational feasibility study;
  - network interconnection study;
  - installation location;
  - one-line diagram;
  - type and capacity of the business envisaged;
  - construction schedule; and
  - operational schedule prepared by a certified business entity.

- Signed power purchase agreement (PPA) between the power producer and the proposed electricity buyer, which in this case is PLN, with the electricity tariff or pricing provision having been approved by the MEMR or the governor of the relevant region pursuant to its authority. PLN controls the transmission, distribution and sale of electric power in all regions in Indonesia. Therefore, any independent power producer (IPP) will be required to enter into a PPA with PLN.
- Other prerequisites include fulfilment of principal commitments for any facilities and infrastructure projects, such as spatial utilisation confirmation, environmental impact assessment (AMDAL), building approval (this is the Indonesian term for a building permit), Functional-Worthiness Certificate (this is the Indonesian term for a

certificate of occupancy), and other applicable permits; hiring qualified technical personnel who possess the required competence certificates to operate the plant and the machinery and equipment therein before the commencement of the plant's operation; and procuring and installing equipment conforming to mandatory National Indonesian Standard requirements, if any and as applicable, before the commencement of the plant's operation.

The government of Indonesia's support for the development of renewable energy power plants is further refined under MEMR Regulation No. 50 of 2017 regarding Utilisation of Renewable Energy Resources for the Provision of Electricity, as amended by MEMR Regulation No. 53 of 2018 and, most recently, by MEMR Regulation No. 4 of 2020 (MEMR Regulation 4/2020) (altogether, MEMR Regulation 50/2017 as amended). Under the regulation there is a specific mandate for PLN to purchase electricity generated from renewable energy.

In general, the purchase of power generated from renewables by PLN can be done through a direct selection offer or direct appointment by PLN. Direct selection typically involves a qualification process in which a minimum of two pre-selected developers submit bids to be evaluated by PLN, with the winning bidder executing a PPA with PLN. Direct appointment, which follows a qualification and evaluation process similar to that for direct selection, except that there only needs to be only one bidder, is also possible under article 4(1a) of MEMR Regulation 50/2017 as amended in the following limited circumstances:

- if the local electricity system suffers a crisis or emergency situation;
- for the purchase of excess electricity, including purchasing electricity through cooperation with the holder of an electricity supply distribution, sale or integrated electricity supply business license covering a specified business area;
- for increased generation capacity at the location of an operating power plant (ie, expansion projects); or
- for the purchase of electricity from a renewable power plant in the event there is only one IPP candidate for the relevant area.

It is worth noting that the more recent MEMR Regulation 4/2020 (as part of the revision of MEMR Regulation 50/2017 as amended) removed the requirement to deliver renewable energy projects to the government as Build-Own-Operate-Transfer (BOOT), and now permits projects that are designated on a Build-Own-Operate basis, in addition to BOOT projects.

The electricity tariff is determined by benchmarking the local electricity generation basic cost (BPP) in the region where the electricity is generated against the national average BPP. BPP is PLN's average electricity generation cost as determined annually by the MEMR based on PLN's own recommendation. An exemption to this tariff regime only applies for entities that have been appointed as winners of capacity quotas for renewable energy projects that obtained approval for a specified electricity price from the MEMR prior to the issuance of MEMR Reg. 50/2017 as amended.

MEMR Regulation 50/2017 as amended stipulates that the calculation of the electricity tariff for power generated from renewables is as follows:

- if the local BPP is greater than the national BPP from the previous year, the tariff shall be set at a maximum 85 per cent of the local BPP; or
- if the local BPP is equal to or lower than the national BPP from the previous year, PLN and the relevant IPP can determine the tariff based on a mutual agreement.

At present, the applicable BPP refers to MEMR Decree No. 169.K/HK.02/MEM.M/2021 regarding PLN Electricity

Generation Basic Cost for 2020, which sets the national BPP at 1,027.7 rupiah/kWh, or US$0.073 cents/kWh, while local BPPs range from 848.71 rupiah/kWh (US$0.060 cents/kWh) to 2,805.50 rupiah/kWh (US$0.20 cents/kWh).

A renewable energy power plant can also obtain other incentives as governed under Presidential Regulation No. 4 of 2016 regarding Acceleration of Electrical Infrastructure Development, as amended by Presidential Regulation No. 14 of 2017, in the form of fiscal incentives, ease of licensing, determination of purchase price for each type of renewable energy, establishment of an independent business entity to supply power to PLN and provision of subsidies.

Notwithstanding the foregoing, different rules apply for windmill plants that generate power for private use.

Solar energy

Describe, in general terms, any regulation of solar energy.

Solar power plant is also considered a high-risk business and therefore a Business License is required to commence operations.

The prerequisites to obtain the business licence for a solar power plant are the same as to obtain a business licence for a windmill plant. The applicable electricity tariff for solar power plants is also the same as for windmill plants.

Hydropower, geothermal, wave and tidal energy

Describe, in general terms, any regulation of hydropower, geothermal, wave or tidal energy.

Hydropower, geothermal, wave and tidal energy power plants are also considered high-risk business and therefore require a business licence to commence operations.

The prerequisites to obtain a business licence for hydropower, geothermal, wave and tidal energy power plants are the same prerequisites to obtain a business licence for windmill plants. Wave and tidal energy power plants may be required to obtain additional permits (eg, water location permit).

The applicable electricity tariff for hydropower, geothermal, wave and tidal energy power plants is the same as for windmill plants.

Waste-to-energy

Describe, in general terms, any regulation of production of energy based on waste.

Waste-to-energy power plant is also considered a high-risk business and therefore a business licence is required to commence operations.

The prerequisites to obtain the business licence for a waste-to-energy power plant are the same as to obtain a business licence for a windmill plant. The applicable electricity tariff for waste-to-energy plants is also the same as for windmill plants, except that the electricity tariff for waste-to-energy plants can also refer to the fixed tariff regime under Presidential Regulation No. 35 of 2018 regarding Acceleration of the Establishment of Sustainable Waste-Based Power Plants (PR 35/2018).

PLN's purchase price for electricity generated from a WTE plant with:

- a capacity of up to 20MW and connected to a high-, medium- and low-voltage network is USD13.35 cent/kWh; and
- a capacity above 20MW and connected to a high- and medium-voltage network is 14,54 – [0,076 x (electricity

generated by the WTE and sold to PLN)].

The above purchase prices are non-negotiable tariffs and without any price escalation adjustment. The tariffs under PR 35/2018 are relatively higher than the tariffs set out in MEMR 50/2017.

For waste-to-energy projects, in addition to electricity sales the power producer can obtain a tipping fee, which is compensation paid by the regional government to the party handling the waste management activities. PR 35/2018 governs that the tipping fee should not exceed 500,000 rupiah per ton.

PR 35/2018 is part of the government of Indonesia's effort to accelerate the development of WTE projects in the country, with a focus on 12 cities (ie, DKI Jakarta, Tangerang, South Tangerang, Bekasi, Bandung, Semarang, Surakarta, Surabaya, Makassar, Denpasar, Palembang and Manado).

In addition to PR 35/2018, the central government may provide additional state budget to regional governments to support the development of waste-to-energy projects to cover waste management services at a maximum 500,000 rupiah per ton waste. This support is stipulated under Minister of Environment and Forestry (MOEF) Regulation No. P.24/MENLHK/SETJEN/KUM.1/5/2019 of 2019 regarding Waste Processing Service Fee Assistance in the Context of Accelerating the Construction of Waste Processing Installations for the Production of Electric Power Based on Environmentally Friendly Technology and MOF Regulation No. 26/PMK.07/2021 regarding Funding Support from the State Budget for Waste Management in the Regions.

Biofuels and biomass

Describe, in general terms, any regulation of biofuel for transport uses and any regulation of biomass for generation of heat and power.

By virtue of MEMR Regulation No. 32 of 2008, as last amended by MEMR Regulation No. 12 of 2015 regarding the Supply, Utilization, and Trade of Biofuel as Other Fuel Sources, the government has imposed an obligation gradually to increase the percentage of biofuel utilisation in multiple sectors against the total needs. The affected sectors include the power plant, industrial and commercial sectors, as well as public and non-public transportation. For instance, the regulation provides that by January 2025, 30 per cent of the power plant sector must utilise biodiesel (B100) as fuel. Similar obligations are provided for the utilisation of bioethanol and vegetable oil.

The business of biofuel and biomass plants falls under the organic chemical industry from agriculture sources and is considered a high-risk business pursuant to GR 5/2021. It requires a business licence obtained from the OSS system and the business actor must fulfil certain administrative and technical requirements, among others:

- having a biofuel resource;
- data on specification and quality standard for the biofuel;
- trademark and trade name;
- statement letter on occupational safety and health and environmental management;
- statement letter on compliance with the laws and regulations;
- statement letter on willingness to be examined by the relevant authorities; and
- document on list of beneficial ownership.

Biofuel plants are also required to guarantee a sustainable supply to the domestic market, and utilise domestic raw materials, technology and manpower. Other primary requirements include fulfilment of principal commitments for any facilities and infrastructure project (such as spatial utilisation confirmation, AMDAL, building approval, Functional-

Worthiness Certificate and other applicable permits).

The market index price of biodiesel fuel is determined monthly by the MEMR after carrying out a verification as stipulated in MEMR Regulation No. 24 of 2021 regarding the Supply and Utilization of Biodiesel Types of Biofuels in the Financing Framework of the Oil Palm Plantation Fund Management Agency, along with MEMR Decree No. 0219 K/12/MEM/2010 of 2010 regarding Market Index Prices of Oil Fuels and Market Index Prices of Biofuels Mixed Into Certain Types of Fuel Oil (as amended by MEMR Decree No. 3053 K/12/MEM/2011 of 2011).

The use of biomass as a renewable energy for power generation is regulated by Government Regulation No. 79 of 2014 regarding the National Energy Policy, and more specifically under MEMR Regulation 50/2017 as amended. The applicable electricity tariff for biomass used for power plants is the same as for windmill plants. Kindly refer to the above elaboration.

In addition, power plants using renewable resources and biofuel plants are considered pioneer industries and may be entitled to tax holidays pursuant to Minister of Finance Regulation No. 130/PMK.010/2020 regarding Corporate Tax Reduction Facilities.

Carbon capture and storage

Describe, in general terms, any policy on and regulation of carbon capture and storage.

The currently regulated carbon capture and storage activities are those arising from forestry business activities under Law No. 41 of 1999, as last amended by Law No. 11 of 2020 regarding Forestry (the Forestry Law) and its implementing regulations, namely Government Regulation No. 23 of 2021 and other MOEF regulations.

There are minimum regulations for carbon capture and trade in the context of non-forestry sectors such as energy, waste and industrial processes. It is expected that the Carbon Regulation will serve as the primary framework for carbon trading in multiple sectors.

Under the Forestry Law and MOEF regulations, carbon 'storage and sequestration' are categorised as environmental service businesses that may be done in both protected forest and productive forest areas with a forestry utilisation business licence (PBPH). Under a PBPH granted by the MOEF, concession holders may be able to conduct various forestry-type business activities aside from carbon capture and storage, such as timber extraction, natural tourism, in accordance with the MOEF stipulation. This is in contrast with the previous licensing regime where one forestry business license was exclusive to a single type of forestry business (ie, one licence for timber extraction, one licence for carbon storage or capture). The current PBPH licensing mechanism is an effort by the government to streamline licensing in the forestry sector and induce the conventional logging industry also to conduct carbon capture or storage, trade or ecosystem restoration and other environmentally beneficial services. This supports the government's commitment as a party to the Paris Agreement.

Under the current regulations, PBPH holders will be obliged to make a non-tax revenue payment to the government for the grant of their PBPH licence, along with provisional payments of fees depending on their yield. We also note that the government is increasing tax imposition, particularly value added tax, in the Harmonized Tax Law, which will impact future carbon credit transactions arising from carbon capture or storage business activities.

CLIMATE MATTERS IN TRANSACTIONS

Climate matters in M&A transactions

What are the main climate matters and regulations to consider in M&A transactions and other transactions?

There are no universal climate change matters and regulations that apply generally to all business actors in the context of M&A transactions and the company or compliance due diligence process customarily involved in such transactions. This is mainly because voluntary GHG emission reductions conducted by business entities or individuals are not yet accounted for in the state's contribution to emissions reduction.

In this regard, climate change-related matters to be considered in connection with an M&A transaction will be those intertwined with a target company's environmental licensing and compliance. For example, whether an industrial company has duly complied with its gas emissions requirement stipulated in its environmental approval. At this juncture, different companies may be subject to different assessments in an M&A due diligence, depending on the nature of their business and the sector in which they operate.

UPDATE AND TRENDS

Emerging trends

Are there any emerging trends or hot topics that may affect climate regulation in your country in the foreseeable future?

The Indonesian government has shown its intent to proceed with framework regulations for carbon tax and the provision of economic value for carbon for carbon trading purposes, through the Harmonized Tax Law and Carbon Regulation, respectively. These developments could have a tremendous effect on climate regulation in Indonesia, especially in terms of controlling and reducing GHG emissions.

Pending the official clarification from the Minister of Environment and Forestry on the recent enactment of the Carbon Regulation, the Minister of Environment and Forestry has circulated a letter to governors and forestry concession holders to halt any new transactions for the sale of carbon emission reductions from forestry concession areas.

Jurisdictions

Australia	Johnson Winter & Slattery
European Union	Allen & Overy LLP
Germany	Enderle Environmental Law
Indonesia	SSEK Legal Consultants
Malta	Camilleri Preziosi
Netherlands	Van der Feltz attorneys
South Korea	Kim & Chang
Spain	Uría Menéndez
USA	Beveridge & Diamond PC