

Natural Resources & Energy Newsletter



Electricity and Renewable Energy Regulatory Framework in Indonesia

Sinta Dwi Cestakarani, R. Wisnu Renansyah Jenie, Raditya Pratamandika Putra, Sadayuki Matsudaira

1. Introduction

Indonesia, the country with the largest population in the ASEAN region (around 270.20 million¹), typically experiences high power demand as a result of rising household and commercial needs. Indonesia's energy consumption in 2020 reached 1,089 kWh per capita at the national level (due to the effects of COVID-19, it was 95% of targeted (expected) consumption).² According to the Ministry of Energy and Mineral Resources ("MEMR"), electricity supply during that period was dominated by non-renewable energy sources, primarily coal, oil, and gas, accounting for 38.04%, 31.60%, and 19.16%, respectively.³ Thus, despite the firm commitment of the Government of Indonesia ("GOI") to implement and support the Paris Agreement within the United Nations Framework Convention on Climate Change, the contribution of renewable energy to the country's sustainable energy supply is still below 12%.⁴ This fact stands in contrast to the GOI's plan to reduce national greenhouse gas emissions, including a specific target of at least 23% renewable energy consumption by 2025 and 31% by 2050 set under the National Energy General Plan (*Rencana Umum Ketenagalistrikan Nasional*; "RUKN").⁵

¹ Indonesian Statistics Agency Release in January 2021 (link: https://www.bps.go.id/website/materi_ind/materiBrsInd-20210121151046.pdf).

² <https://industri.kontan.co.id/news/realisasi-konsumsi-dan-produksi-listrik-nasional-di-tahun-lalu-meleset-dari-target>.

³ DJEBTKE Performance Report 2020 (link: <https://ebtke.esdm.go.id/post/2021/04/19/2843/laporan.kinerja.ditjen.ebtke.tahun.2020>).

⁴ *Loc. Cit.*, DJEBTKE Performance Report 2020.

⁵ National Energy General Plan (*Rencana Umum Energi Nasional*) as set under President Regulation No. 22 of 2017 on the National Energy General Plan.

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One of the challenges of harnessing renewable energy in Indonesia is the expected high cost of its generation. For example, while a coal power plant incurs an average capital cost of less than USD 1 million per MW, a geothermal power plant may incur double or triple such amount, ranging from USD 2 million to USD 3 million per MW, and even higher for offshore wind energy, namely from USD 3 million up to 4 million per MW.⁶

To tackle these hurdles and encourage businesses to support the renewable energy utilization plan in Indonesia, the GOI has issued various new regulations to create positive momentum and provide incentives for producing and utilizing renewable energy. This newsletter intends to provide an overview of renewable energy-based power supply in Indonesia, focusing on (i) the regulatory framework and structure and (ii) market development.

2. Regulatory Framework and Structure

(a) Regulatory Basis

The electricity sector in Indonesia is principally governed by Law No. 30 of 2009 on Electricity (“**Electricity Law**”) as last amended by Law No. 11 of 2020 on Job Creation, often referred to as simply the “Omnibus Law”. This sector is supervised by the MEMR together with its directorates, and specifically for renewable energy, by the Directorate General of New, Renewable Energy and Energy Conservation (*Direktorat Jenderal Energi Baru Terbarukan dan Konservasi Energi* (“**DJEBTKE**”)).

Renewable energy-based power supply (i.e., deriving from renewable energy sources, such as geothermal, wind, bioenergy, and photovoltaic energy) is further regulated by Law No. 30 of 2007 on Energy (as amended) and MEMR Regulation No. 50 of 2017 on the Utilization of Renewable Energy Sources for Electricity Supply, as last amended by MEMR Regulation No. 4 of 2020 (“**MEMR Regulation 50/2017**”), which set outs rules on procurement, pricing, and rules on Power Purchase Agreement (“**PPA**”).

As for geothermal energy, there are additional regulations applicable to it, namely, Law No. 21 of 2014 on Geothermal (as amended) and its implementing regulations: Government Regulation No. 7 of 2017 on the Indirect Utilization of Geothermal and MEMR Regulation No. 37 of 2018 on Offering of Geothermal Working Areas, Issuance of Geothermal Licenses, and Assignment of Geothermal Businesses.

(b) Authorities

Electricity and renewable energy lie within the authorities of either the Central Government or the Regional Government, depending on the specific policy matter. However, as shown in the matrix below, most key authorities are now centralized within the Central Government through the MEMR and the DJEBTKE.

Central Government	Regional Government
<ul style="list-style-type: none"> a. National policy, laws and regulations, standards, guidelines, and criteria regarding the electricity sector and the RUKN; b. Approval of electricity tariffs for the public and power prices from IPPs to PLN; 	<ul style="list-style-type: none"> a. Regional electricity regulations and provincial Electricity General Plan; and b. Supervision of regional licenses, which typically are administrative and operational in nature.

⁶ Pefindo- Power & Energy Industry April 2020 <https://www.pefindo.com/fileman/file/909>.

Central Government	Regional Government
<ul style="list-style-type: none"> c. Determination of IPP’s business/working areas; d. Issuance of power supply business licenses including at cross-province and cross-country levels; and e. General supervision. 	

Logistically, all substantial licenses, both national and regional, are now obtained through a single online system called the “Online Single Submission” system, which thus far has provided a more transparent and efficient licensing system compared to the previous regime, where all permit processes were manual.

(c) PLN and Independent Power Producers

As a rule in Indonesia, Independent Power Producers (“**IPP**”) may not sell electricity to the public directly; for such purposes, the GOI gives priority (and privilege) to the state-owned enterprise, *PT Perusahaan Listrik Negara (Persero)* (“**PLN**”). However, to ensure smooth supply and distribution of electricity to the public, the GOI allows IPP to contribute to the country’s electricity supply. In this structure, the most common in Indonesia, IPP enter into a PPA with PLN to develop, construct, and operate a power plant supplying electricity to PLN. After PLN receives the power from the IPP, PLN will then further distribute and sell the power to the public.

(d) Power supply activities and foreign investment liberalization

Power supply activities can fall under several categories based on the intended purposes: public interest or private interest (self-use). Power supply activities for public interest include any activities (or a combination of them) listed below, whereas power supply activities for private interest include the same activities, except for item (iv).

- (i) Power generation;
- (ii) Power transmission;
- (iii) Power distribution; and
- (iv) Power sale.

Through the recent enactment of President Regulation No. 10 of 2021 on Investment Business Activities, the GOI has relaxed certain foreign ownership restrictions, and therefore the following power sectors are now open to 100% foreign ownership:

- (i) Power generation with a capacity of more than 1 MW for all types of energy (those with a capacity lower than 1 MW remain closed to foreign investors);
- (ii) Power transmission; and
- (iii) Power distribution.

Notwithstanding the above, please note that MEMR Regulation No. 48 of 2017 on the Supervision of Businesses in the

Energy and Mineral Resources Sector prohibits sponsors/shareholders of an IPP (other than geothermal based IPPs – which are exempted from this prohibition) from transferring their shares at any time before the IPP reaches the Commercial Operation Date (“COD”), except for transfer to an affiliated party in which such sponsors/shareholders hold more than 90% of shares (subject to PLN’s approval).

(e) Procurement of IPPs in Renewable Energy Sector

For the non-renewable energy sector, existing regulations require IPP procurement through public tender or, under certain circumstances, through direct selection or appointment. By contrast, to stimulate foreign investments in the renewable energy sector, the GOI allows PLN to procure an IPP through either direct selection or appointment, which practically should be more efficient in time and cost compared to public tender. The procedures, requirements, and technical procurement documents are specified in Regulation of the Board of Directors of PLN No. 0062.P/DIR/2020 on Purchase of Electricity from New and Renewable Energy-Based Power Plants dated 28 August 2020 (“**PLN BOD Regulation**”), as summarized below:

(i) Direct Selection:

- The procurement is conducted by comparing at least two proposals from different IPPs and, for intermittent renewable energy sources (i.e., those depending on the rate of local radiation or weather, such as solar and wind energy), the procurement is also subject to the capacity quota determined by PLN.
- MEMR Regulation 50/2017 mandates the entire process from the qualification, offer submission and evaluation, and signing of the PPA within 180 days. However, depending on the circumstances, one should expect the process to take longer than 180 days in practice.

(ii) Direct Appointment

- Conducted through the direct appointment of a single IPP
- Allowed only in any of the following circumstances:
 - (A) There is only one potential and capable candidate;
 - (B) The GOI determines there is a crisis or emergency condition of electricity supply in a particular area;
 - (C) There is excess power generated by a self-use power producer in a particular area;
 - (D) There is a need to increase the generation capacity at the power generation centre operated in the same location, and there is only one capable IPP to increase the generation capacity (as determined by PLN) – i.e., expansion of the existing facility; or
 - (E) For certain GOI projects, e.g., on specific assignments by the MEMR to PLN.
- MEMR Regulation 50/2017 mandates the entire process, from the qualification, offer submission and evaluation, and signing of the PPA within 90 days. However, depending on the circumstances, one should

expect the process to take longer than 90 days in practice.

Under all circumstances, the PLN BOD Regulation requires an IPP in the renewable energy sector to fulfil all the qualification requirements, including the following:

- (i) it is supported by an EPC contractor having experience in constructing the specified power plant;
 - (ii) it has a project development cost account in the amount of 10% of the total project cost for the power plant, or specifically for a geothermal power plant, 10% of the total project cost minus the exploration cost;
 - (iii) it meets the administrative requirements, including submission of the IPP ownership structure (up to its ultimate beneficial ownership) and policy/guideline/standard operating procedure related to the compliance system (e.g., code of ethics, anti-fraud policy, whistleblowing system, and business ethics);
 - (iv) it meets the technical requirements set therein; and
 - (v) it has the financial capacity, including the financial support/reference from a bank.
- (f) Power Purchase Agreement

The GOI applies different structures or schemes when purchasing power supply from IPPs. Unlike the purchase of non-renewable energy, which must be done through the ‘Build, Own, Operate, and Transfer’ (“**BOOT**”) scheme, the purchase of Renewable Energy-based power, subject to negotiation with PLN, is done through the ‘Build, Own, and Operate’ (“**BOO**”) scheme, by which the IPP is not obligated to transfer the project to PLN upon the expiry of the PPA.

Under (i) MEMR Regulation No. 10 of 2017 on the Principal Points for the Power Purchase Agreement as last amended by MEMR Regulation No. 10 of 2018, and (ii) PLN BOD Regulation, the minimum standard provisions for a PPA that involves renewable energy are as follows:

- (i) Period;
- (ii) Rights and Obligations of both PLN and the IPP, including:
 - Rights:*
 - 1) PLN: to receive penalty payment for IPP’s breach.
 - 2) IPP: to receive deemed dispatch payment from PLN in case PLN’s grid is disrupted due to non-*force majeure* events.
 - Obligations:*
 - 1) PLN: to make deemed dispatch payment in case PLN’s grid is disrupted due to non-*force majeure* events.
 - 2) IPP: to provide a performance guarantee and submit a power supply plan (availability factor).
- (iii) Risk Allocation;

- (iv) Project Implementation Guarantee, to include: commitment to achieve financing, commissioning, and COD;
- (v) Commissioning and COD;
- (vi) Fuel Supply (as relevant, excluding solar, wind and geothermal);
- (vii) The agreed transaction, being technicalities of the power purchase, among others, (i) PLN’s obligation to purchase power and the (ii) payment mechanics (e.g., must be made in IDR unless exempted by Bank Indonesia);
- (viii) Control of Operating Systems, being the roles and obligations of PLN’s unit to set system operation of dispatch;
- (ix) Penalty on Power Plant Performance, being minimum supply/availability commitment and penalty in case of breach;
- (x) Termination clause;
- (xi) Transfer of Rights;
- (xii) Price Adjustment Requirements;
- (xiii) Dispute Resolution;
- (xiv) Force Majeure;
- (xv) Provisions on Project Development Cost Account as referred to in #(ii) of IPP qualification requirement explained in Section 2.(e);
- (xvi) Restructuring of provisions under the PPA;
- (xvii) Refinancing;
- (xviii) Anti-Corruption/Bribery/Money Laundering;
- (xix) Local Content Requirement;
- (xx) Carbon Credit; and
- (xxi) Prepayment or advance payment by PLN to IPP to be (i) treated as deemed dispatch payment, payable upon the occurrence of certain conditions, among others: government action/inaction and change of laws and regulations and/or (ii) used as prepaid energy to enable PLN to request IPP to supply power without additional payment through mechanics agreed under the PPA).

(g) Purchase Price

The purchase price proposed by the IPP to PLN is subject to MEMR’s approval.

The purchase price calculation method depends on PLN’s generation cost as approved by the MEMR (excluding power distribution costs), often referred to as *Biaya Pokok Pembangunan* (“BPP”) at the national and local/regional levels.

The price calculation method as described in MEMR Regulation 50/2017 is as follows:

No.	Source of Renewable Energy	Threshold	Benchmark Price
1.	a. Solar b. Wind c. Biomass d. Biogas e. Ocean Thermal and	If the local/regional BPP is higher than the national average BPP (i.e., the average of the BPPs applicable in all locations throughout Indonesia for the relevant year)	The maximum purchase price is 85% of the local/regional BPP.
1.	Current	If the local BPP is lower than or equal to the national average BPP	The purchase price is negotiated and mutually agreed upon between the IPP and PLN.

No.	Source of Renewable Energy	Threshold	Benchmark Price
2.	a. Hydro b. City Waste	If the local/regional BPP is higher than the national average BPP	The maximum purchase price is equal to the local/regional BPP.
1.	c. Geothermal	If the local BPP is lower than or equal to the national average BPP	The purchase price is negotiated and mutually agreed upon between the IPP and PLN.
3.	a. Liquid biofuel b. Hydro energy deriving from reservoir/dam or irrigation channel, both of which must meet certain construction requirements (e.g., multi-purpose construction)	N/A	The purchase price is negotiated and mutually agreed upon between the IPP and PLN.

(h) Local Content Requirement

The Electricity Law requires the prioritization of domestic products and services (local content), and therefore foreign products and potential resources are only allowed if the domestic products/potential resources are not available. At the same time, Minister of Industry Regulation No. 54/M-IND/PER/3/2012 on the Guidelines for the Utilization of Domestic Products for the Development of Electricity Infrastructure (as amended) sets the minimum percentage of local content, depending on the type of renewable energy. For example, (i) solar (for modules): a minimum of 60% domestic products and (ii) geothermal (>110 MW): a minimum of 28.95% domestic products and services (e.g., Engineering, Procurement, and Construction (EPC) services and consulting services) combined.

(i) Key Milestones towards the Commercial Operation Date

Below are key COD milestones for IPP projects in Indonesia.

- (i) Negotiation Process. During this process, the IPP and PLN will negotiate the power price and other key provisions under the draft PPA. Upon successful negotiation, PLN will issue an appointment letter (Letter of Intent) for the IPP.
- (ii) Submission of the proposed power price by PLN to the MEMR for approval.
- (iii) Finalization and signing of the PPA.
- (iv) FID (Final Investment Decision) and Financial Close, i.e., the stage at which the IPP has obtained financing for the project.
- (v) Construction of the power plant.
- (vi) Commissioning of the power plant. This stage is required to test the operational aspects of the plant and, if it is successful, a technical inspection agency accredited by the MEMR will issue the so-called “Operation

Worthiness Certificate” (*Sertifikat Laik Operasi*).

- (vii) Commercial Operation Date. The plant starts to generate power and transmits it to the power grid owned by PLN.

3. GOI’s Responses to the Recent Market Circumstances

(a) Current Utilization Trend and the GOI’s Plan

The global commitment to reduce greenhouse gas emissions has encouraged the GOI to increase new and renewable energy utilization.

Through the issuance of Government Regulation No. 79 of 2014 on National Energy Policy, the GOI has set a target of 23% by 2025 and 31% by 2050 for the utilization of new and renewable energy and, at the same time, is attempting to reduce the utilization of other conventional energy sources. Nonetheless, at the end of 2020, the utilization of new and renewable energy in Indonesia stood only at 11.2% of the total energy supply.⁷

The GOI plans to build a massive solar park in eastern Indonesia to boost solar photovoltaic energy generation.⁸

Moreover, the GOI is also planning to pass a new law on renewable energy and a new presidential regulation on the purchase of renewable energy-based power.

(b) New Renewable Energy-Based Power Price

The GOI is reportedly planning to issue a new regulation on renewable energy-based power pricing in 2021, replacing the current BPP, wherein the calculations provide a better account for the generation costs of renewable energy. The new price scheme is expected to be more bankable and attractive to investors.⁹

(c) Shift from BOOT to BOO in Renewable Energy

Previously, the GOI adopted the BOOT scheme even for renewable energy, but investors heavily criticized it due to project valuation difficulties when transferring projects back to the GOI. For this reason, in 2020, the MEMR revoked the BOOT scheme for renewable energy.¹⁰ Under the current BOO scheme (which is subject to negotiation with PLN), the IPP is no longer required to transfer the project to the GOI at the end of the PPA term.

(d) Relaxation during the COVID-19 Pandemic

The COVID-19 pandemic continues to have a considerable impact on Indonesia in all sectors, including the energy sector.

⁷ *Loc.cit.*, DJEBTKE Performance Report 2020

⁸ <https://www.industry.co.id/read/79638/tak-kalah-dengan-portugal-dan-arab-saudi-dirjen-ebtke-kami-akan-bangun-solar-park-satu-hamparan-luas-di-indonesia-timur-yang-isinya-solar-panel-saja>.

⁹ <https://industri.kontan.co.id/news/esdm-pembahasan-perpres-harga-listrik-ebt-pararel-dengan-ruptl-2021-2030>

¹⁰ MEMR Regulation 50/2017.

The imposition of the Large-Scale Social Restriction (*Pembatasan Sosial Berskala Besar*; “**PSBB**”) and travel restrictions to prevent the spread of COVID-19 have badly affected power demand in the commercial sector (e.g., office and industrial) as well as investments in the renewable energy sector, among others, due to an increase in construction costs and delays in project development leading to increased overhead costs and limited operational and maintenance activities in renewable energy production.¹¹ To tackle these challenges, the GOI has provided several incentives, such as relaxation of the COD deadline and removal of financial fines for COD delay.¹²

(e) Other Incentives

In addition, the GOI has also provided additional fiscal incentives in the form of an income tax holiday, income tax allowance, value-added tax exemption on material goods related to renewable energy, relaxation in loan repayment for the development of various renewable energy sources¹³, import duty exemption on renewable energy, and property tax reduction up to 100 % for the exploration phase of geothermal energy.¹⁴

4. Closing Remarks

The GOI has clearly shown commitment to achieving its renewable energy utilization target through various new regulations giving more relaxations and opportunities for potential investors. In the least, from a regulatory perspective, the GOI has set a positive momentum for investments in Indonesian renewable energy-based power supply.

¹¹ <https://www.dunia-energi.com/pemerintah-terapkan-langkah-penanggulangan-dampak-covid-19-subsektor-ebt/>.

¹² <https://www.antaranews.com/berita/1439016/insentif-bisnis-ebt-difokuskan-di-wilayah-terdampak-covid-19>.

¹³ *Ibid.*

¹⁴ <https://www.kemenkeu.go.id/en/publications/news/renewable-energy-eligible-for-tax-incentives-to-supply-indonesias-energy-sufficiency-in-the-future/>.



[Sinta Dwi Cestakarani](#)

Attorney-at-Law (Admitted in Indonesia), Jakarta Office* Walalangi & Partners
E-mail: Scestakarani@wplaws.com

Sinta Dwi Cestakarani is a talented and experienced Indonesian lawyer with almost a decade of experience in assisting domestic and international clients with main areas of practice encompasses energy, banking and finance, M&A, mining and TMT.

She obtained her law degree from University of Padjadjaran, where she graduated with *cum laude* predicate.

Prior to joining Walalangi & Partners, she worked for the biggest law firm in Indonesia. During her years of practice, she involved in assisting domestic and foreign companies in various notable transaction and advisory work predominantly in the areas of TMT merger and acquisition, mining, and fintech business. Due to her many great achievements in a relatively short time, she was chosen by Hukumonline as one of 11 inspiring NexGen Lawyers of 2019.



[R. Wisnu Renansyah Jenie](#)

Attorney-at-Law (Admitted in Indonesia), Jakarta Office* Walalangi & Partners
E-mail: Rjenie@wplaws.com

R. Wisnu Renansyah Jenie is a bright and agile lawyer with more than six years of experience in Indonesian legal practice, mostly focusing on cross-border market and capital market transactions.

He has assisted clients in the areas of energy, banking & finance, capital markets, M&A, including foreign companies in their complicated financing structures and capital market transactions and investment plans.



[Raditya Pratamandika Putra](#)

Attorney-at-Law (Admitted in Indonesia), Jakarta Office* Walalangi & Partners
E-mail: Rpratamandika@wplaws.com

Raditya Pratamandika is a young and very talented Indonesian lawyer with more than five years of experience. He obtained his Bachelor of Laws degree from Universitas Padjadjaran and was then active in the Asian Law Students' Association and several moot court competitions.

Prior to joining Walalangi & Partners, he worked at a first-tier UK-affiliated law firm, where he assisted various foreign and domestic clients in banking as well as energy and natural resources matters, in which he has immense knowledge and experience.



[Sadayuki Matsudaira](#)

Partner, Tokyo Office
E-mail: s.matsudaira@nishimura.com

Sadayuki Matsudaira has extensive expertise in international energy projects, transactions and regulatory matters. He is the Regional Vice-Chair for Asia Pacific of Lex Mundi's Energy Group. He was elected as Leading Individual in Projects and Energy in The Legal 500 Asia-Pacific 2021.

*1 Associate office