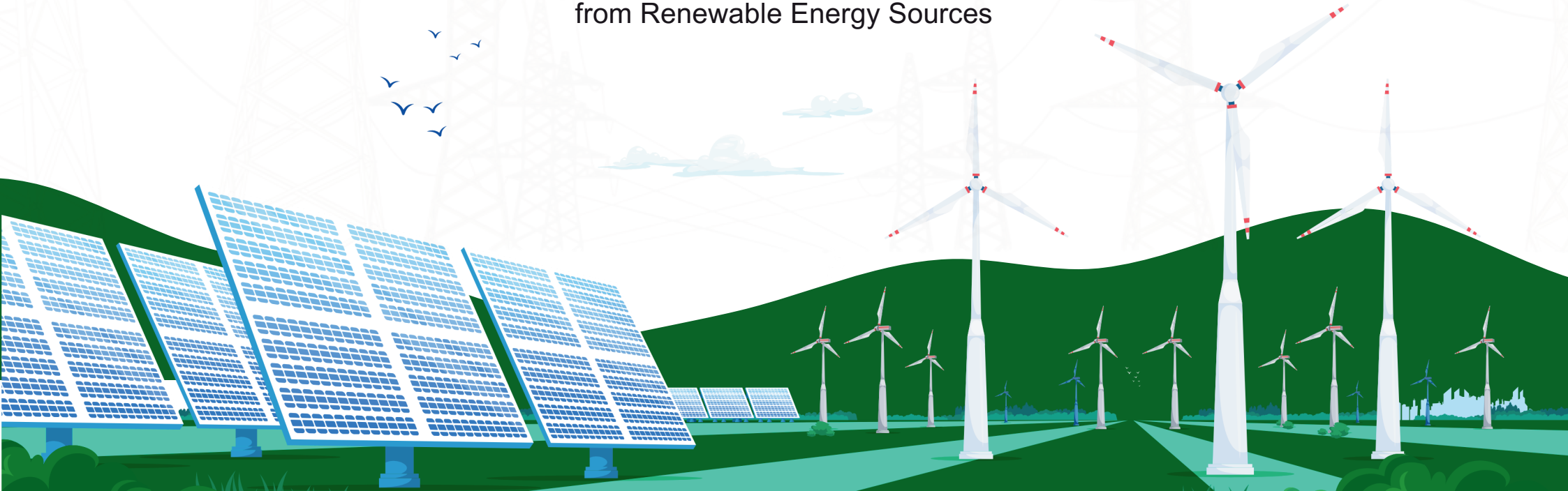
Policy Insight –Indonesia

Indonesia Ministry of Energy and Mineral Resources (MEMR) Regulation No. 5/2025

Guidelines on Power Purchase Agreement
from Renewable Energy Sources



A closer look at the Indonesia MEMR Regulation No.5/2025

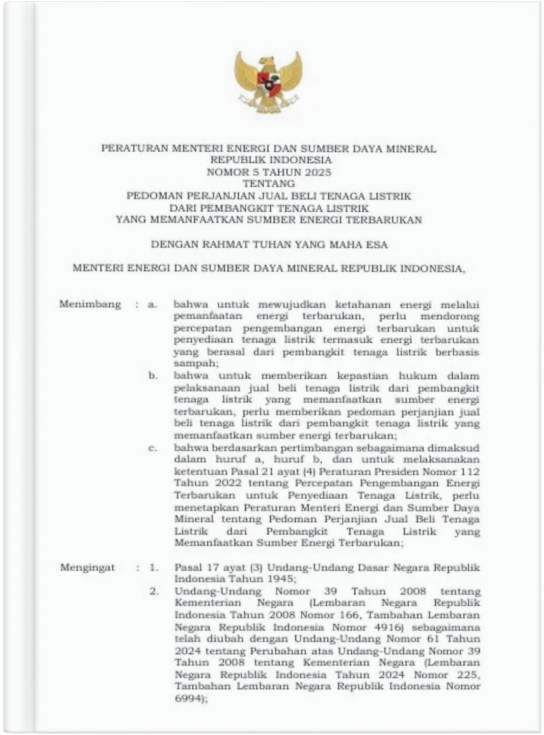
On March 4, 2025, the Ministry of Energy and Mineral Resources (MEMR) Indonesia **ratified the** Ministerial Regulation (Permen) ESDM Number 5 of 2025 on Guidelines for Power Purchase Agreements (PPAs) from Renewable Energy Sources power plants.

This is **a subsequent regulation to Presidential Regulation No. 112/2022** on the "Acceleration of Renewable Energy Development for Electricity Supply," which mandated the Minister of Energy and Mineral Resources to establish a guideline for power purchase agreements from renewable energy sources.

Renewable Energy PPAs were **initially governed by MEMR Regulation No. 10/2017,** which established fundamental provisions but contained regulatory gaps, particularly in IPP-PLN contractual arrangements. This MEMR Regulation No. 5/2025 **refines the previous regulation and addresses gaps** by providing a comprehensive guideline regulatory framework for renewable energy PPAs.

The objective of MEMR Regulation No 5/2025 are:

- Realising energy resilience through renewable energy utilisation and pushing for an accelerated progress of renewable energy adoption for electricity supply.
- Providing a clear regulatory framework for electricity sales from renewable energy sources.
- Fulfilling the mandate to establish a guideline for power purchase agreement from renewable energy sources, as outlined in Presidential Regulation No. 112/2022.



PERATURAN MENTERI ENERGI DAN SUMBER DAYA MINERAL
REPUBLIK INDONESIA
NOMOR 5 TAHUN 2025
TENTANG
PEDOMAN PERJANJIAN JUAL BELI TENAGA LISTRIK
DARI PEMBANGKIT TENAGA LISTRIK
YANG MEMANFAATKAN SUMBER ENERGI TERBARUKAN

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI ENERGI DAN SUMBER DAYA MINERAL REPUBLIK INDONESIA,

Menimbang : a. bahwa untuk mewujudkan ketahanan energi melalui pemanfaatan energi terbarukan, perlu mendorong percepatan pengembangan energi terbarukan untuk penyediaan tenaga listrik termasuk energi terbarukan yang berasal dari pembangkit tenaga listrik berbasis sampah;
b. bahwa untuk memberikan kepastian hukum dalam pelaksanaan jual beli tenaga listrik dari pembangkit tenaga listrik yang memanfaatkan sumber energi terbarukan, perlu memberikan pedoman perjanjian jual beli tenaga listrik dari pembangkit tenaga listrik yang memanfaatkan sumber energi terbarukan;
c. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a, huruf b, dan untuk melaksanakan ketentuan Pasal 21 ayat (4) Peraturan Presiden Nomor 112 Tahun 2022 tentang Percepatan Pengembangan Energi Terbarukan untuk Penyediaan Tenaga Listrik, perlu menetapkan Peraturan Menteri Energi dan Sumber Daya Mineral tentang Pedoman Perjanjian Jual Beli Tenaga Listrik dari Pembangkit Tenaga Listrik yang Memanfaatkan Sumber Energi Terbarukan;

Mengingat : 1. Pasal 17 ayat (3) Undang-Undang Dasar Negara Republik Indonesia Tahun 1945;
2. Undang-Undang Nomor 39 Tahun 2008 tentang Kementerian Negara (Lembaran Negara Republik Indonesia Tahun 2008 Nomor 166, Tambahan Lembaran Negara Republik Indonesia Nomor 4916) sebagaimana telah diubah dengan Undang-Undang Nomor 61 Tahun 2024 tentang Perubahan atas Undang-Undang Nomor 39 Tahun 2008 tentang Kementerian Negara (Lembaran Negara Republik Indonesia Tahun 2024 Nomor 225, Tambahan Lembaran Negara Republik Indonesia Nomor 6994);

Document Link: MEMR Regulation No.5/2025

The evolvement of regulation on RE PPA in Indonesia

The development of regulation that governs RE development in Indonesia started in 2012 and has been evolving ever since, following the timeline below

2012 — MEMR Regulation No. 4/2012

- Regulates power purchase from Small and Medium Scale Renewable Energy Power Plants (biomass, biogas, hydro, solar).
- Introduces FiT for RE projects

2014 — MEMR Regulation No. 17/2014

Governs electricity purchase from Hydropower Plants up to 10 MW. Provides clearer FiT schemes and standardised PPA terms for micro-hydro projects

2015 — MEMR Regulation No. 3/2015

Simplifies electricity purchase from small and medium-scale renewable energy plants, consolidating and streamlining earlier regulations.

2017 — MEMR Regulation No. 10/2017

Introduces general Principles of Power Purchase Agreements (PPAs) for all generation types, including renewables.

2017 — MEMR Regulation No. 10/2018

- Specifically addresses the Utilisation of RE Resources for Electricity Supply.
- Introduces tariff setting based on PLN's local BPP (Basic Production Cost) and mandates direct appointment for certain RE projects.

2018 — MEMR Regulation No. 10/2018

Second Amendment to MEMR No. 10/2017. Improves PPA bankability by refining risk allocation, force majeure provisions, termination, and lender rights.

2018-2022 — Amendments to MEMR Regulation No. 50/2017

Series of revisions to enhance tariff flexibility, procurement processes, and contractual clarity to attract greater renewable energy investment.

2025 — MEMR Regulation No. 5/2025

Aims to address regulatory gaps and enhance the renewable PPA framework. **Refines provisions from MEMR No. 10/2017, providing a clearer, more bankable environment tailored for renewable energy projects.**

Evolution of RE PPA Regulation in Indonesia

The first specific regulation governing RE PPAs was introduced in 2017 through MEMR Regulation No. 10/2017, subsequentlyrefined by MEMR Regulation No. 10/2018, and further enhanced by the upcoming MEMR Regulation No. 5/2025. The key differences across these regulations are summarized in the diagram below.

MEMR Regulation No. 10/ 2017

General guidelines on PPA:

- Duration, Rights and Obligation, Risk Allocation, Project Implementation Guarantee
- Commissioning and COD, Transactions, Fuel Supply, System Operation, and Penalties
- Termination, Dispute Settlement, and Force Majeure

MEMR Regulation No. 10/ 2018

Removal of some of the components in the Force Majeure clause

MEMR Regulation No. 5/ 2025

- Addition and adjustment of specific clauses and components for RE projects:
- Types of RE sources, project operation mechanism, curtailment issues, penalties for delays, etc.
- Electricity Installation Certification, Local Content, Environmental Attribute, Refinancing

RE PPA components regulated under MEMR No 5/2025

MEMR Regulation No 5/2025 set the standard for the RE PPA, which contained 21 main components. This policy insight will provide the highlights of the detailed provisions of the several RE PPA components indicated below.

1. General Provisions
2. Duration of the PPA
3. Rights and Obligations
4. Risk Allocation
5. Project Implementation Guarantee
6. Commissioning and COD
7. Electricity Installation Certification
8. Electricity Sales Transaction
9. Power Systems Operation
10. Power Generation Performance
11. Termination of the PPA
12. Rights Transfer
13. Pricing and Price Adjustment Requirements
14. Dispute Resolution
15. *Force Majeure*
16. Local Content
17. Environmental Attribute and Carbon Value
18. Refinancing
19. Language
20. Fuel Supply
21. Intermittent Renewable Energy Generation

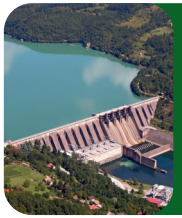
: Key provisions to be covered under this policy insights

RE PPA components regulated under MEMR No 5/2025

General Provisions (Article 1)

MEMR Regulation No.5/ 2025 regulates renewable PPA for all available renewable energy sources in Indonesia. By specifying the regulated renewable energy sources, the regulation creates a clarity on the types of renewable technology would this regulation apply, thus providing legal certainty on renewable PPAs.


Geothermal Power Plants (PLTP)


Hydropower Plants (PLTA & PLTMH)


Solar PV Power Plants (PLTS)


Wind Power Plants (PLTB)


Biomass Power Plants


Biofuel-based Power Plants


Waste-to-energy Power Plants


Biogas Power Plants


Ocean Energy Power Plants


Energy Storage

Legend:

The renewable energy sources regulated in the MEMR Regulation No. 10/2017

The additional renewable energy sources regulated in the MEMR Regulation No. 5/2025

RE PPA components regulated under MEMR No 5/2025

Duration of PPA (Article 5 – 6)

The MEMR Regulation No. 5/2025 provides more flexibility to RE project developers (IPPs), allowing the extension of PPA and BOO mechanism in developing and operating the RE project.

The maximum duration of the PPA is **30 years from COD.** In the case of the PPA being extended, the electricity sales price for the extension period will refer to the **highest reference price after the tenth year of operation (staging 2).**

MEMR Regulation No. 10/ 2017

The PPA strictly use the Build-Own-Operate-Transfer (BOOT) mechanism

MEMR Regulation No. 5/2025

The renewable PPA allows the use of **Build-Own-Operate (BOO)** mechanism or other project development and operation mechanism

The renewable PPA is **available for extension**, with an adjustment in the electricity sales price

Analysis

This regulation ensures that IPPs receive optimal revenue from selling electricity to PLN. Setting the highest reference price would enable the IPP's to generate higher revenue which could be utilised for maintenance and operations of the plants, considering the technical derating and lifetime of RE technology.

The BOO mechanism allows IPPs to retain long-term asset ownership, ensuring continuous revenue, operational control, and investment incentives, while offering stronger bankability, simplified legal structure, and eliminating transfer-related risks compared to BOOT schemes.
On the PLN side, BOO reduces capital burden, transfers project risks to IPPs, and ensures reliable power supply without asset transfer or long-term maintenance obligations.

RE PPA components regulated under MEMR No 5/2025

Project Implementation Guarantee (Article 10-14)

Indonesia's RE development has long been hindered by lengthy procurement processes, regulatory uncertainties, and project executiondelays. Recognising these challenges, MEMR Regulation No. 5/2025 introduces a stricter regulatory framework aimed at streamlining procurement and ensuring timely project execution, both from the IPPs and PLN. The project delay mitigations are regulated as below.

Project delays from the agreed COD caused by IPPs → Liquidated Damage/ each delay day (Capped to 180 days)

$$\textit{Liquidated Damage} = \frac{\textit{\% of Project Value}}{\textit{180 Days (max. delay)}} \times \textit{Delay day(s)}$$

Project delays from the agreed COD caused by PLN, excluding force majeure events → IPP is entitled for payment of the deemed dispatch counted from the deemed COD

Additionally, IPPs need to provide project implementation guarantee to PLN at the **maximum amount of 10% of the total project cost.**

Analysis

By having this regulation, the IPPs are obligated to ensure the commencement of the project at the agreed COD. On the other hand, PLN is also obligated to provide compensation to the IPPs in the case of delay caused by PLN, thus the risk of delay is being fairly distributed among the parties.

Additional expenses for project guarantee may affect the attractiveness of the project from the perspective of IPPs.

RE PPA components regulated under MEMR No 5/2025

Electricity Sales Transaction (Article 16 – 19)

On deemed dispatch and curtailment

IPPs are entitled to obtain payment over *Deemed Dispatch* if the generated power is being curtailed by PLN, in the following conditions:

Curtailment

- Inspection, maintenance, or repairment of equipment or parts of PLN-operated power grid.
- Emergency in PLN-operated power grid due to obstruction of the Grid Code or Distribution Code.

The payment over Deemed Dispatch is **calculated based on the amount of curtailed energy (in kWh)** within the duration of when the absorbed energy by PLN is lower than the committed energy (CE) or availability factor (AF).

On electricity sales between IPP(s) and PLN

PLN is obligated to purchase renewable power according to the CE or AF stated in the PPA. PLN is **allowed to purchase power exceeding the CE or AF** on the following conditions:

- The purchased electricity is priced at the maximum of 80% of the PPA.
- The purchased power will be used to satisfy the local electricity demand.

For power plant optimisation, PLN is **allowed to purchase electricity from the previously contracted RE plants and produce electricity exceeding the unit rated capacity** (maximum of 30% addition from the CE or AF) with the following considerations:

- Using the lowest electricity price available
- The purchased electricity will be used to satisfy the local electricity demand.

Analysis

This provision primarily benefits IPPs by ensuring revenue certainty, even when dispatch is curtailed due to grid constraints beyond their control. This reduces financial risk, enhances project bankability, and facilitates easier access to financing.

For PLN, the regulation offers a clear and transparent framework to manage curtailments and minimise disputes. However, it limits PLN's operational flexibility and may increase financial obligations. Overall, the regulation favors IPPs by providing stronger risk protection and revenue stability, while PLN gains regulatory clarity but bears greater payment commitments.

RE PPA components regulated under MEMR No 5/2025

Power System Operations (Article 20)

The MEMR Regulation No. 5/2025 requires the dispatcher from PLN to **prioritise electricity generation from renewable energy sources** in planning and operating the grid, by also taking into consideration the compliance with national grid code and distribution code to ensure the reliability of grid operation.

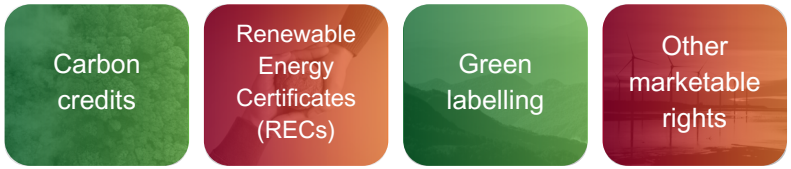
Analysis

As the article suggests, the prioritisation of renewable energy dispatch in planning and operating the grid would support the decarbonisation of the electricity sector.

The regulation also supports the dispatcher (PLN) by requiring the compliance with the national grid code and distribution code to avoid any major disturbances caused by the prioritisation of RE dispatch, particularly for variable/ intermittent sources (e.g., solar and wind power plants).

Environmental Attribute and Carbon Value (Article 34)

The concept of environmental attribute has been an imminent issues in the face of carbon reduction targets pledged by countries. This regulation provides a clearer framework for environmental attribute ownership from renewable energy generation.



- The ownership of environmental attribute or carbon economic value is regulated to be included in the renewable PPA, according to the existing governing law/regulation.
- In the absence of governing law/ regulation, the ownership is to be settled among the contracting parties.

Analysis

Clearly defining the ownership of environmental attributes in a Renewable Energy PPA ensures legal certainty, prevents double counting, supports compliance with sustainability targets, and enables the monetisation of associated benefits such as Renewable Energy Certificates (RECs) or carbon credits.

Refinancing (Article 35)

For RE supply optimisation, IPPs are **allowed to do refinancing** on the project(s), while keeping PLN informed along the refinancing process.

Analysis

The refinancing provision allows IPPs to restructure their debt to secure lower financing costs during the PPA term. This improves project cash flow, enhances profitability, and may extend project sustainability without regulatory hurdles.

PLN benefits indirectly, as refinancing can lower overall generation costs. Depending on contractual terms, PLN may share in the cost savings through tariff adjustments, ensuring a more efficient cost structure in the long term.

RE PPA components regulated under MEMR No 5/2025

Intermittent Renewable Energy Generation (Article 38-40)

The MEMR Regulation No.5/2025 offers ways to support and ensure reliable grid planning and operation considering the additional variable renewable energy integration into the grid.

To ensure the safe and reliable operation of the grid, the IPP(s) is obligated to **inform PLN on the monthly and yearly estimate of energy production of intermittent RE power plant** accurately, with an agreed level of error stated in the PPA.

This will require IPPs to utilise supporting technologies for weather forecast (e.g., measuring wind speed, solar irradiance) and advanced data acquisition to ensure the level of accuracy of the estimated generation

Besides maintaining grid stability, this regulation presents a clearer regulation for RE transactions considering the use of energy storage. The energy storage and the intermittent RE plant is **considered as one integrated RE facility,** hence the renewable energy sales between IPP(s) and PLN are calculated based on the amount of energy received in the point of transactions.

At the end of the energy storage/ battery lifetime:

- IPP(s) is obligated to replace the energy storage/ battery facility with the same technology and specification of performance, or better.
- IPP(s) will bear the expenses of replacing the energy storage/ battery, which in turn add another factor to be considered in IPP's financial assessment.

Analysis

Overall, the provision fosters a balanced risk-sharing mechanism that encourages renewable energy deployment while safeguarding grid reliability. This provision ensures that the intermittency of vRE is formally recognised for IPPs, shielding them from penalties or unfavourable contract terms related to fluctuations in generation beyond their control which improves project bankability, making RE projects more attractive to investors and lenders.

For PLN, while the provision supports the integration of renewables, it also emphasises PLN's responsibility to maintain grid stability amidst variable inputs which may require PLN to invest in improved forecasting systems, reserve capacity, or flexible grid management strategies to accommodate intermittent supply.

RE PPA components regulated under MEMR No 5/2025, specifically for geothermal power plants

Several provisions in the regulation clearly define the terms and conditions for renewable PPAs from geothermal energy sources, from the project implementation, termination, and price adjustment.

Project Implementation Guarantee (Article 11)

Specifically for geothermal power plants, the **IPPs are obligated to follow all provisions related to project implementation** according to the PPA. A penalty as per the agreement will be imposed if the IPPs failed to fulfil their obligations.

Termination of the PPA (Article 25)

The PPA is terminated if the following condition occurs:

- The PPA duration has ended
- Non-compliant to the agreement
- The project not reaching final investment decision (FID)
- IPPs being liquidated/ going bankrupt
- **Permit for geothermal energy ended**
- Force majeure and other conditions as per agreed in the PPA

Geothermal Power Plants COD (Article 12)

COD of new geothermal power plants **could be done in stages, reflective of the supply availability of the geothermal energy** until the fulfilment of the CE or AF.

Price Adjustment for Geothermal Power Plants (Article 29)

For geothermal power plants, the **price listed in the pre-transaction agreement could be adjusted** by taking into consideration the technical results from the geothermal exploration and the highest set price in compliance with related regulation.

Analysis

The article on project implementation guarantee ensures the timely execution of the geothermal project from the IPPs, shifting the risk to IPPs and alleviating the associated risks from PLN.

The article on COD benefits the IPPs in a way that the IPPs are given the flexibility to commercially operate the power plants in stages, thus making geothermal power plants more attractive for IPPs (and lenders). The same goes with price adjustment which ensures fair pricing for geothermal power, hence increasing the bankability of the project and attracting IPPs and lenders.

Transition Provision

The promulgation of this regulation presents a provision to give a clearer direction on the enactment of this regulation and how it will affect the ongoing renewable PPAs, further providing contractual clarity both for the IPPs and PLN as the buyer. How this regulation implementation affects the ongoing and future PPA is explained through the transition provision below.

Existing renewable PPAs (signed and commenced)

The **existing renewable PPAs,** which has already been signed and commenced prior to the enactment of MEMR Regulation No. 5/2025, **will still be valid and will follow preceding regulations until the contract ends.**

In the case of the renewable PPA being extended, the contract extension will follow the new regulation (MEMR Regulation No. 5/2025).

Ongoing process of renewable power purchase

The provisions in this regulation will only affect/ enacted upon the renewable PPAs that are signed and commenced after this regulation was released.

Existing renewable PPAs that are undergoing procurement process (up until the offering period) will follow the preceding regulations.

Renewable power purchase exceeding the CE or AF

For the renewable PPAs signed before the promulgation of this regulation, PLN will still **be able to purchase renewable power exceeding the CE or AF through an additional agreement** inseparable from the existing renewable PPAs.

Foreseen Impact of MEMR Regulation No.5/2025 for RE development in Indonesia

Overall, MEMR Regulation No. 5/2025 clearly defines the framework for RE project development in Indonesia, aiming for a balanced of risk allocations for both IPPs and PLN as the off-taker.
IPPs are foreseen to benefit especially in terms of increasing **bankability** and **financial certainty,** while PLN benefits through **operational control** and **long-term cost management.**

Benefits to IPP

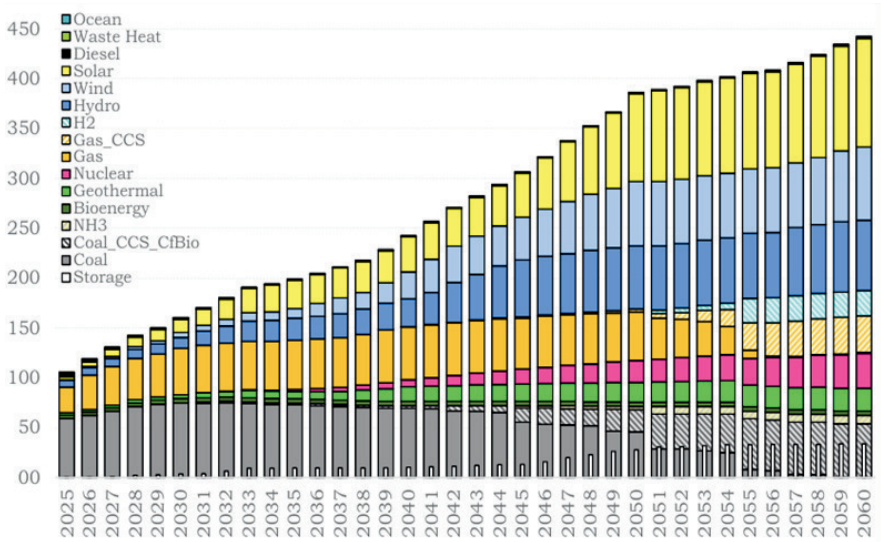
1. **Deemed Dispatch Payment** Guarantees revenue even when their generation is curtailed, reducing demand risk and improving bankability.
2. **BOO Scheme Adoption.** IPPs retain asset ownership, allowing long-term revenue and refinancing opportunities.
3. **Refinancing Clause.** Enables IPPs to lower financing costs, improving project returns.
4. **Environmental Attribute Ownership Clarity.** Allows IPPs to monetise carbon credits or Renewable Energy Certificates (RECs).
5. **Standardised, Bankable PPA Terms.** Provides contractual clarity, appealing to lenders and investors.

Benefits to PLN

1. **Tariff and Procurement Flexibility.** Maintains control over tariff settings and procurement processes to protect affordability.
2. **Grid Reliability Management.** Provisions for intermittent RE and dispatch control allow PLN to safeguard grid stability.
3. **Cost Pass-Through Mechanisms.** Ensures that certain costs (like curtailment compensation) are regulated and manageable
4. **Long-term Cost Visibility.** Standardisation helps PLN forecast expenditures and plan capacity expansion efficiently.

According to the National Electricity Plan (RUKN 2024-2060), Indonesia sets a target to install more RE plants in the future, with a total of approximately 182 GW and 70.5 GW coming from vRE (mostly from solar and wind) and hydro, respectively.

Projection of Installed Capacity by 2060 (in GW)



Source: MEMR Indonesia, 2024 – RUKN 2024-2060

Implementation of this regulation is foreseen to accelerate the implementation of RE projects of those targets by **providing standards on RE PPA and aim to mitigate the risk of RE projects, which hopefully led to higher investments for RE projects in Indonesia.**

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