

Green Economy and Climate Research Group

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What's New in the Presidential Regulation of the Republic of Indonesia Number 112 of 2022 on the Acceleration of Renewable Energy for Electricity Supply

Policy Highlights

Presidential Regulation No. 112 of 2022 intends to hasten the deployment of renewable energy, signalling the government's goal to reduce emissions from the energy sector. The policy encompasses several key points. First, the government has set direct selection as the main procurement method for renewable projects. This regulation also determines the ceiling price for electricity from renewable sources according to the type of technology, location factors, and price staging. Regarding coal-fired power plants, this regulation aims to retire them early and prohibits new coal-fired power plants from being built, except under some conditions. This becomes the legal basis for expediting the phasing out of coal. Lastly, the regulation mandates the government body—the ministries and regional governments—to coordinate and support renewable energy projects.

Introduction

Indonesia has taken steps toward its commitment to encouraging new and renewable energy (NRE) development and cutting greenhouse gas (GHG) emissions. Increasing the contribution of NRE aligns with the country's ambition to reduce GHG emissions. Indonesia has ratified the Paris

Agreement with Law No. 16 of 2016. On this basis, Indonesia has documented its goal to decrease GHG emissions in the Nationally Determined Contribution (NDC), which has been updated and enhanced. The Enhanced NDC determines an unconditional emission reduction of 31.89% against the business-as-usual (BAU) scenario in 2030 and a conditional emission reduction of 43.20% against the BAU scenario in 2030 if Indonesia receives international aid.¹ The Long-Term Strategy for Low Carbon and Climate Resilience (Indonesia LTS-LCCR 2050) also outlines a plan to lower GHG emissions. The energy sector is the second-largest emitter after the agriculture, forest, and other land use (AFOLU) sectors.² The LTS-LCCR emphasizes the necessity of an ambitious transition toward renewable energy, especially in a low-carbon scenario that is compatible with the Paris Agreement. Moreover, a significant level of coal consumption must be cut, complemented with carbon capture and storage technology as well as bioenergy.³

The Indonesian government's National Energy Policy (*Kebijakan Energi Nasional*, or KEN) sets a target for the share of renewable energy in the country's energy mix to reach 23% by 2025 and 31% by 2050⁴. The details of the energy supply policy are documented in the National Electricity Master Plan (RUKN), which consists of a national electricity policy spanning 20 years. The most recent version of the document was RUKN 2019–2038. Based on macroeconomic aims and assumptions, the RUKN projects the demand for

¹ Enhanced Nationally Determined Contribution Republic of Indonesia (2022). Available at: https://unfccc.int/sites/default/files/NDC/2022-09/23.09.2022_Enhanced%20NDC%20Indonesia.pdf (Accessed: 7 May, 2023).

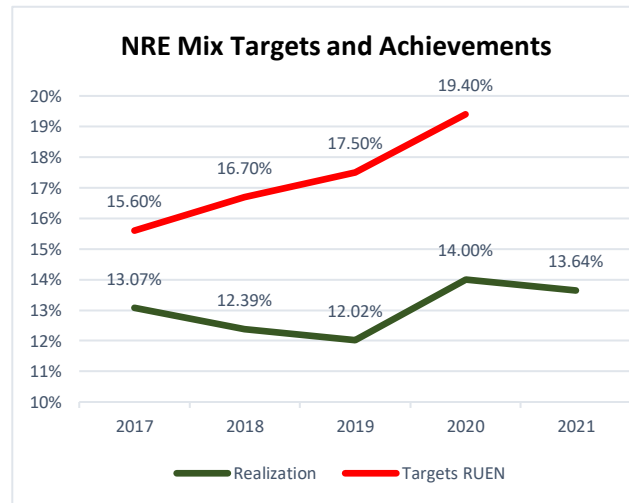
² Indonesia Long-Term Strategy for Low Carbon and Climate Resilience (LTS-LCCR) 2050 (2021). Available at: https://unfccc.int/sites/default/files/resource/Indonesia_LTS-LCCR_2021.pdf (Accessed: 7 May, 2023).

³ Ibid.

⁴ Indonesia. *Government Regulation Number 79 of 2014 about National Energy Policy*. State Gazette of the Republic of Indonesia of 2014 Number 300, Supplement to the State Gazette of the Republic of Indonesia Number 5609. State Secretariat. Jakarta.

power for the next 20 years. The RUKN's forecasted electricity supply also follows the KEN's target energy mix.⁵

The development of NRE faces numerous challenges despite the growing aspirations for the energy transition toward renewable sources. The transition would result in many stranded assets, particularly with the difficulties of converting coal power plants to those that generate renewable energy. This causes dependence, namely the condition of being locked into fossil fuel power plants. Furthermore, the transition entails migrating workers to green jobs, which will require considerable investment in human resources training.⁶



Source: *Electricity Statistics of Indonesia (2021)* and *Perpres 22/2017 about National Electricity General Plan*

The development of NRE projects is also hindered by constraints on their financial feasibility. A study by the Institute of Economic and Social Research (LPEM) showed that less than 50 percent of NRE project samples were feasible. This is due to the costs associated with developing NRE in Indonesia, such as local content requirements as well as the high costs of land acquisition and transmission infrastructure.⁷

These difficulties (among many others that will not be mentioned) create a gap between the targets and their realization. The figure represents the targets and achievements of the NRE mix. The NRE mix targets are based on the 2025 projection of a 23% NRE mix. This calls for government support to hasten NRE development as well as the early retirement of current fossil fuel

⁵ Indonesia. *Decree of the Ministry of Energy and Mineral Resources Number 143 K/20/MEM/2019 about the National Electricity General Plan for 2019 to 2038.*

⁶ LTS-LCCR 2050 (2021).

⁷ Maulia, R. F., & Siregar, A. A. (2020). *Unlocking Renewable Energy Potential in Indonesia: Assessment on Project Viability.* Institute for Economic and Social Research.

power plants. In response, the president issued Presidential Regulation Number 112 of 2022 on the Acceleration of Renewable Energy for Electricity Supply.

The acceleration of RE development will require actions and plans from many stakeholders. The next section will identify the new features of PR 112/2022 and compare them to those of the previous regulation. Because the effectiveness of the new regulation also depends on various stakeholders, we will also examine their roles as described in PR 112/2022. We will also provide a report on whether derivative regulations, such as ministry regulations, have been issued based on PR 112/2022 to promote NRE development.

New Features of PR 112/2022

The new presidential regulation addresses three significant issues in Indonesia's renewable energy development: procurement methods for renewable energy power plants, ceiling prices for electricity from renewable power plants, and the phasing out of coal power plants.

Procurement

The new regulation has modified several aspects of the procurement process as governed by the previous regulation. Table 1 below summarizes the differences between the previous and new regulations.

Aspect	MEMR Regulation No. 4/2020	Presidential Regulation No. 112/2022
Procurement option	<ol style="list-style-type: none"> 1. Direct Selection 2. Direct Appointment 	
Terms and conditions	<ul style="list-style-type: none"> • Solar and wind using direct selection with capacity quotas; • Hydro, biomass, biogas, ocean, and biofuel power plants using direct selection; 	<ul style="list-style-type: none"> • Direct selection for all renewable power plants, regardless of their capacity, with these exceptions: <ol style="list-style-type: none"> 1. PLTA that utilizes hydropower from reservoirs, dams, or

	<ul style="list-style-type: none"> • Waste-to-energy using direct appointment by the municipality; and • Geothermal using direct appointment where the resource is proven to exist. 	<p>irrigation canals whose construction is multipurpose in nature as property belonging to the state through the ministry in charge of government affairs in the field of water resources;</p> <ol style="list-style-type: none"> 2. PLTP from holders of IPB, holders of power of attorney for the exploitation of geothermal resources, holders of joint operating contracts for the exploitation of geothermal resources, and holders of permits for the exploitation of geothermal resources; 3. additional generating capacity (expansion) of PLTP, PLTA, photovoltaic PLTS, PLTB, PLTBm, or PLTBg; and 4. excess electricity (excess power from PLTP, PLTA, PLTBm, or PLTBg).
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Source: Author's Construction, 2023.

Under PR 112/2022, the government of Indonesia defines two procurement methods: direct appointment and direct selection. Both are the same as the previous regulation, MEMR No. 4/2022. The changes are found in the process, where most of the renewable energy power plants will be picked through direct selection for all renewable energy power plant regardless of their capacity, except (i) PLTA that utilizes hydropower from reservoirs, dams, or irrigation canals whose construction is multipurpose in nature as property belonging to the state by the ministry in charge of government affairs in the field of water resources; (ii) PLTP from holders of IPB, holders of power of attorney for the exploitation of geothermal resources, holders of joint operating contracts for the exploitation of geothermal resources, and holders of permits for the exploitation of geothermal resources; (iii) additional generating capacity (expansion) of PLTP, PLTA, photovoltaic PLTS, PLTB, PLTBm, or PLTBg; and (iv) excess electricity (excess power from PLTP, PLTA, PLTBm, or PLTBg).

Both direct appointment and direct selection start with an initial selection of business entities, similar to the PQ process conducted by PLN.⁸ The direct appointment, as mentioned in Article 14, paragraph (2), is preceded by a document submission process up to the signing of the power purchase agreement (PPA), including a document evaluation that is completed within a maximum of 90 (ninety) calendar days. The criteria are based on administrative, technical, and financial assessments. On the other hand, as referred to in Article 14 paragraph (4), direct selection is carried out by offering the lowest price based on the highest benchmark price. It is performed transparently and fairly without granting any privileges to any party, with a maximum of 180 days from the document collection process to the PPA.

Price Mechanism

The MEMR Regulation No. 4/2020 and PR No. 112/2022 regulate electricity prices from power plants, previously by using a capping mechanism, *Biaya*

⁸ Presidential Regulation on Renewable Energy Development (2022). Available at: <https://umbra.law/2022/09/15/presidential-regulation-on-renewable-energy-development/> (Accessed: 26 April, 2023).

Pokok Penyediaan (BPP), and a ceiling price in the newest regulation. Table 2 below summarizes the differences between them.

Aspect	MEMR Regulation No. 4/2020	Presidential Regulation No. 112/2022
Price Regime	<i>Biaya Pokok Penyediaan Listrik (BPP)</i> ⁹	<ol style="list-style-type: none"> Ceiling Price Agreement
Terms and conditions	<ul style="list-style-type: none"> Electricity prices will be determined based on a comparison between the regional and national BPP. If the regional BPP > national BPP, the maximum price is 85% of the regional BPP. If the regional BPP ≤ national BPP, the electricity price is 100% of the regional price. 	<ul style="list-style-type: none"> Ceiling price is applied to all renewable technologies regardless of size, with two staging periods (year 1–10 and year 11 onward). The ceiling price now considers the location factor in renewable energy technology. Agreements only apply to hydro peakers, biofuel, and tidal energy.

Source: Author's Construction, 2023.

The purchase price of electricity from a renewable energy power plant that utilizes renewable energy from PT PLN (Persero) in PR 112/2022 is determined by the ceiling price and agreement mechanisms. The ceiling prices are applied to every renewable energy power plant regardless of capacity, but the agreement only applies to hydro peakers, biofuel, and tidal

⁹ BPP reflects the cost for PLN to generate power and procure electricity supply from third-party suppliers such as IPPs but does not include the cost of transmitting the electricity.

power plants. Between the two methods, PR 112/2022 emphasizes ceiling prices.

Under the ceiling price mechanism, the government determines the maximum prices of electricity from RE power plants purchased by PLN. There is no escalation of electricity prices during the PPA, except for those of geothermal power plants. The government only sets two phases for the ceiling price of renewable energy: phase 1 (year 1–10) depends on the location factor (F), while phase 2 (year 11 onward) does not consider the location factor. Biomass and biogas also do not take the location factor into account.

The PR 112/2022 further specifies the ceiling price mechanism with several conditions, such as cases in which renewable energy originates from facilities that were built by a business entity or the central or regional government through different financing mechanisms. Interestingly, the ceiling price for an expansion power plant is lower than that for an ordinary power plant. For instance, hydro expansion power plant prices were only 70% of a hydropower plant's ceiling price, and the other RE expansion power plant prices were only 80% of the ceiling price of their power plant counterparts. In addition, the government also determined that the price of solar power plant whose land is supported by the government will only be 95% of the price of solar power plants that the government does not maintain. Lastly, the price of a battery or energy storage system is determined based on a ceiling price of 60% of the purchase price of electricity. If it exceeds 60%, the minister's approval must be obtained.

New Legal Basis: Coal Phase-Out

In 2021, Indonesia drafted a declaration for the Global Coal to Clean Power Transition at the 26th World Leaders Summit on Climate Change, or COP-26 (Global Coal Transition Towards Clean Energy). MEMR also stated that the government was reviewing opportunities to retire early coal power plants with a total capacity of 9.3 GW before 2030. This could be done with the support of up to \$48 billion in funding. In collaboration with ADB, Indonesia has launched the Energy Transition Mechanism (ETM) program, which is expected to raise around \$2.5 to \$3.5 billion to stop 2-3 coal-fired power plants per country. It was only when PR 112/2022 was introduced that the

commitment and initiative on coal phase-out gained a legal basis for their execution. In other words, PR 112/2022 served as a game-changer by forming the legal basis for the government to perform actions concerning the coal phase-out.

The PR 112/2022 became the first regulation to mandate the Ministry of Energy and Mineral Resources and other relevant ministries to develop a roadmap for Indonesia's coal-fired power plant phase-out. The roadmap should be developed by including three main points: (i) an emission reduction plan for coal power plant; (ii) an early retirement plan for coal power plant; and (iii) the alignment of various other policies. The new regulation does not solely ban coal-fired power plants but makes several exceptions. Development will be permitted for coal power plant that already exist under the latest version of the RUPTL and coal power plant that will integrate with the industry, reduce emissions by 35% in 10 operations, and operate until 2050 at maximum. Lastly, the government could encourage the early retirement of coal power plant through blended finance and fiscal incentives. The government, through the Ministry of Finance, has developed the Indonesia Energy Transition Mechanism (ETM) Country Platform to support this transition and the associated regulations.

Stakeholder Roles as Mentioned in PR 112/2022

PR 112/2022 regulates the government body to support renewable energy projects and development. The difficulties faced by NRE development necessitate the cooperation of many stakeholders. The ministries and regional governments are expected to develop rules, plans, and initiatives to support NRE deployment. Therefore, we have outlined the stakeholders, their roles, and their implementation in relation to the PR 112/2022.

Line of Government Body	Assigned Role	Recent Initiatives
Ministry of Energy and Mineral Resources	<ul style="list-style-type: none"> Constructing plans to develop renewable energy power 	<ul style="list-style-type: none"> The ministry has not published any new plans concerning the development of renewable energy power plants.

	plants and coal phase-out	<ul style="list-style-type: none"> The most recent regulation issued to support NRE was <i>Peraturan Menteri ESDM Nomor 26 Tahun 2021 tentang PLTS Atap yang Terhubung pada Jaringan Tenaga Listrik Pemegang IUPTL untuk Kepentingan Umum</i> (Rooftop Solar Panel Power Plants Connected to the Electricity Grid of IUPTL Holders for Public Interest).
Ministry of Finance	<ul style="list-style-type: none"> Providing fiscal incentives for renewable energy funding and coal phase-out Compensating PLN if PLN buys electricity from RE power plant, which could lead to an increase in BPP 	<ul style="list-style-type: none"> The ministry has launched the Energy Transition Mechanism (ETM) Country Platform for Indonesia. PT Sarana Multi Infrastruktur (PT SMI), as the ETM Country Platform Manager, would develop the financing schemes with many partners, such as grant, financial, and investment institutions.¹⁰ The newest regulation issued was <i>PMK 172/PMK.04/2022 Perubahan atas Peraturan Menteri Keuangan Nomor 218/PMK.04/2019 tentang Pembebasan Bea Masuk dan/atau Tidak Dipungut Pajak dalam Rangka Impor</i>

¹⁰ Indonesia Luncurkan ETM Country Platform (2022).

<https://www.kemenkeu.go.id/informasi-publik/publikasi/siaran-pers/Siaran-Pers-Indonesia-Luncurkan-ETM-Country> (Accessed: 20 April, 2023).

		<i>atas Impor Barang untuk Kegiatan Penyelenggaraan Panas Bumi.</i>
Ministry of Agrarian Affairs and Spatial Planning/National Land Agency	<ul style="list-style-type: none"> • Easing access and land permits for the construction of renewable energy projects 	<ul style="list-style-type: none"> • The cost of land acquisition, which includes the high number of land disputes in Indonesia, also becomes a barrier to investments in renewable energy projects. Local communities may also oppose the development of these projects. • The ATR/BPN ministry has not issued any updated regulations on easing access and land permits for renewable energy development. • The facilitation of land permits is supported by <i>UU Nomor 11 Tahun 2020 tentang Cipta Kerja</i>. One map policy would reduce the overlaps in land claims and plans. The Digitalized Detailed Spatial Plan (<i>Rencana Detail Tata Ruang</i> or RDTR) may also reduce the uncertainties for businesses in accessing the land.
Ministry of Environment and Forestry	<ul style="list-style-type: none"> • Easing access and land permits in forest areas for the 	<ul style="list-style-type: none"> • The ministry has launched an operational plan for a program called Indonesia's FOLU (forestry and other land use sector) Net Sink

	<p>construction of renewable energy projects</p>	<p>2030. This plan aims to increase the capacity to reduce GHG emissions from the FOLU sector and even achieve a net sink by 2030. Some of the actions involve decreasing the deforestation rate, reducing forest degradation, and improving the peatland management system.¹¹The ministry has not adopted an updated regulation related to its support for the development of NRE.</p>
<p>Ministry of Public Works and Housing</p>	<ul style="list-style-type: none"> • Granting land permits and lowering the costs of building infrastructure projects 	<ul style="list-style-type: none"> • Recently, the ministry has built rooftop solar panels for houses in South Sumatra as a pilot project. It also plans to develop hydroelectric power plants with a government-enterprise cooperation scheme in several regions of Indonesia.¹² • In November 2022, the ministry officially announced the construction of floating solar power plants in Waduk Muara Nusa, Bali. They were also showcased at the 2022

¹¹ Operational Plan Indonesia FOLU Net Sink 2030 (2022).

https://www.menlhk.go.id/site/single_post/4705/operational-plan-indonesia-s-folu-net-sink-2030 (Accessed: 20 April, 2023).

¹² PUPR Ministry committed to developing green energy infrastructure (2022).

<https://en.antaraneews.com/news/254005/pupr-ministry-committed-to-developing-green-energy-infrastructure> (Accessed: 20 April, 2023).

		<p>G20 Bali summit as the first floating solar power plants in Indonesia.¹³</p> <ul style="list-style-type: none"> • No derivative regulations have been issued by this ministry following the PR 112/2022.
Ministry of Home Affairs	<ul style="list-style-type: none"> • Formulating policies for regional governments that could support RE projects 	<ul style="list-style-type: none"> • The ministry has been encouraging regional governments to construct and implement the Regional Energy General Plan (<i>Rencana Umum Energi Daerah Provinsi</i>, or RUED-P). The ministry maintains that regional governments could contribute to the energy transition toward renewable energy, especially through micro-hydro and solar power plants.¹⁴ • The ministry has not published any new rules or policies concerning the development of renewable energy power plants following PR 112/2022.
Ministry of	<ul style="list-style-type: none"> • Setting 	<ul style="list-style-type: none"> • The ministry has actively

¹³ Coordinating Minister Luhut inaugurates PLN floating solar power plant in Nusa Dua (2022).

<https://www.thejakartapost.com/adv/2022/11/13/coordinating-minister-luhut-inaugurates-pln-floating-solar-power-plant-in-nusa-dua.html> (Accessed: 20 April, 2023).

¹⁴ Kemendagri Dorong Pemda Susun Peraturan Daerah Rencana Umum Energi (2022). <https://koran.tempo.co/read/info-tempo/477904/kemendagri-dorong-pemda-susun-peraturan-daerah-rencana-umum-energi> (Accessed: 20 April, 2023).

<p>State-Owned Enterprises</p>	<p>indicators of PLN's performance in preparing RE targets</p> <ul style="list-style-type: none"> • Engaging in the development of the PLN Business Plan (RUPTL) 	<p>shown its ambition to support NRE development. State-owned enterprises are encouraged to invest in and develop NRE projects. One of its recent actions was the development of solar power plants, which began operation in March 2022 in Bali. The projects were developed by PT Bukit Asam and PT Jasa Marga.¹⁵</p> <ul style="list-style-type: none"> • No new regulation has been adopted by the ministry regarding the PR 112/2022 about the indicators of PLN's target NRE mix.
<p>Ministry of Investment/BKPM</p>	<ul style="list-style-type: none"> • Easing business permits and improving business certainty 	<ul style="list-style-type: none"> • The facilitation of business permits is also supported by <i>UU Nomor 11 Tahun 2020 tentang Cipta Kerja</i>. One of the new systems that has been implemented is the Online Single Submission (OSS). The development of a factory or building is assessed in relation to the associated risks. • No other updated regulations pertaining to easing business permits have been issued.

¹⁵PTBA Gandeng Jasa Marga Perluas Pembangunan PLTS di Jalan Tol (2023). <https://www.cnnindonesia.com/ekonomi/20230309121856-85-922847/ptba-gandeng-jasa-marga-perluas-pembangunan-plts-di-jalan-tol> (Accessed: 20 April, 2023).

<p>Ministry of Industry</p>	<ul style="list-style-type: none"> Supporting business entities with reference to the local content requirements (<i>tingkat komponen dalam negeri</i>, or TKDN) 	<ul style="list-style-type: none"> There is one regulation about the local content requirements for electricity infrastructure, that is <i>Peraturan Menteri Perindustrian No. 05/M-IND/PER/2/2017 tentang Perubahan atas Peraturan Menteri Perindustrian Nomor 54/M-IND/PER/3/2012 tentang Pedoman Penggunaan Produk dalam Negeri untuk Pembangunan Infrastruktur Ketenagalistrikan</i>. The ministry has also issued the calculation method in <i>Peraturan Menteri Perindustrian No. 04/M-IND/PER/2/2017 Ketentuan dan Tata Cara Penilaian Tingkat Komponen dalam Negeri untuk Pembangkit Listrik Tenaga Surya</i>.
<p>Regional Governments</p>	<ul style="list-style-type: none"> Facilitating business permits and offering fiscal incentives, particularly for land and building tax (PBB) 	<ul style="list-style-type: none"> 25 of 34 provinces have issued their Regional General Energy Plan, or <i>Rencana Umum Energi Daerah</i> (RUED). The RUED consists of the regional government's plan to align with the RUEN's target.¹⁶
<p>National Utility</p>	<ul style="list-style-type: none"> National 	<ul style="list-style-type: none"> The current RUPTL is RUPTL

¹⁶ Perkembangan Penyusunan RUED Provinsi 34 Provinsi (2022). <https://den.go.id/index.php/dinamispage/index/863-perkembangan-penyusunan-rued-provinsi-34-provinsi.html> (Accessed: 20 April, 2023).

<p>Company/PT PLN (<i>Perusahaan Listrik Negara</i>)</p>	<p>Electricity Supply Business Plan (RUPTL)</p>	<p>2021–2030. • One of PT PLN’s current initiatives is a green financing partnership of USD 750 Juta (750 million USD).¹⁷</p>
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Closing Remarks

Aiming to support the development of renewable energy, the new Presidential Regulation (PR) 112/2022 introduces three new features. First, the procurement methods for RE projects are direct selection and direct appointment. The majority of renewable energy power plants will be procured under direct selection regardless of their capacity, with several exceptions as stated in PR 112/2022. Second, the new pricing scheme for electricity will be based on ceiling prices and agreements. Third, the legal basis for carrying out the commitment and initiative to phase out coal was established with the launch of PR 112/2022. The government now has the necessary legal basis to take action towards coal phase-out. Nevertheless, the effectiveness of PR 112/2022 relies on the coordination and cooperation of multiple stakeholders to promote the growth of renewable energy. The new regulation has designated key stakeholders and their roles. Continuous monitoring and assessment by the public and the media will be critical to ensuring the proper implementation of the policy.

¹⁷ Percepat Transisi Energi di Indonesia PLN Menjalinkan Kerja Sama Pembiayaan Hijau USD 750 Juta (2022). <https://bumn.go.id/post/percepat-transisi-energi-di-indonesia-pln-menjalinkan-kerja-sama-pembiayaan-hijau-usd-750-juta> (Accessed: 20 April, 2023).