



**BAPPENAS**

Kementerian Perencanaan Pembangunan Nasional/  
Badan Perencanaan Pembangunan Nasional



## ENERGY COMPACT SUBMISSION

Energy Compacts have been identified as High Impact Initiative to drive SDG 7 and clean energy goals. The instructions alongside each line item will serve as a guide to support you in this process. All items marked with an asterisk (\*) are mandatory. Kindly supplement your application with any relevant files. Please note that by submitting an Energy Compact you indicate a willingness to align with the guiding principles and subject to appraisal against them. You can find the Energy Compact guiding principles here: <https://www.un.org/sites/un2.un.org/files/ec-expression-of-interest.pdf>

Should you require further assistance, please contact us at [un-energycompact@un.org](mailto:un-energycompact@un.org) with a copy to [energycompact@seforall.org](mailto:energycompact@seforall.org).

SECTION 1: GENERAL INFORMATION		PROPONENT NOTES
		Use this column to add any additional comments
Energy Compact Title	<b>Energy Compact of the Government of Indonesia</b>	Indonesia developed a roadmap for SDG implementation in 2018, which served as a guide for various stakeholders in working towards the 2030 agenda. This roadmap has been revised and updated to align with the vision of Golden Indonesia 2045 Vision. This report serves as the primary reference for this Energy Compact.
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Proponent type *	<b>National Government</b>	
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Region *	<b>Asia and Pacific</b>	

SECTION 2: AMBITION		PROPONENT NOTES Use this column to add any additional comments
<i>Linkages</i> *	7.2	
<i>Target</i> *	Increase share of new and renewable energy mix in total primary energy supply from 12.3% in 2022 to 23% by 2029	Target as identified by the Intervention scenario of the Roadmap for Sustainable Development Goals 2023-2030 is 26.1% by 2030. Since the National Medium-term Development Plan (RPJMN) 2025-2029 is ongoing arranged with the target of renewable energy share is 23% in 2029. Moreover, NRE mix target also determined as the priority program in RPJMN 2020-2024, concerning on 'meeting energy needs by prioritizing the increase in renewable energy' (PP1). PP1 is included in National Priority (PN) 1, namely 'strengthening economic resilience for quality and equitable growth'.
<i>Linkages</i>	7.3; 7.b	
<i>Target</i>	Improve energy intensity of the economy from 133.9 SBM/Mil Rp in 2021 to 125.96 SBM/Mil Rp in 2030	Target as identified by the Intervention scenario of the Roadmap for Sustainable Development Goals 2023-2030. The target of energy intensity reduction is for 1% per annum, stated in RUEN target. This target is also determined as the priority program in RPJMN, concerning on 'meeting energy needs by prioritizing the increase in renewable energy' (PP1). PP1 is included in National Priority (PN) 1, namely 'strengthening economic resilience for quality and equitable growth'.
<i>Linkages</i>	13; 7.2	
<i>Target</i>	By 2030, reduce annual greenhouse gas emissions in energy sector from 358 Mton CO <sub>2</sub> e (self-efforts) to 446 Mton CO <sub>2</sub> e (conditional with interventions), to align with goal of net zero emissions by 2060.	Target as identified by the Intervention scenario of the Roadmap for Sustainable Development Goals 2023-2030. This supports commitments made through the Enhanced Nationally Determined Contributions by the Republic of Indonesia to the UNFCCC (2022).
<i>Linkages</i>	7.2	
<i>Target</i>	More than 4.76 GW of solar PV and 0.608 GW of wind capacity are installed by 2030, up from around 0.4 GW in 2022.	Additional power plant capacity up to 2030 for Solar PP 4.68 GW and Wind PP 0.597 GW (Source: RUPTL PT PLN 2021-2030)

SECTION 3: ACTIONS & OUTCOMES TO ACHIEVE TARGETS		PROPONENT NOTES Use this column to add any additional comments
<i>Relevant target</i> *	Increase share of new and renewable energy mix in total primary energy supply from 12.3% in 2022 to 23% by 2029	
<i>Action(s) &amp; Outcome(s)</i> *	<p>To achieve the 2030 renewable energy mix target, there are several strategies that can be considered:</p> <ol style="list-style-type: none"> <li>1. Massive development of NRE PP, including Floating Solar PV and Rooftop Solar;</li> <li>2. Mandatory of biodiesel and other biofuel implementation;</li> <li>3. Biomass Cofiring;</li> <li>4. Dedieselization, converting diesel PP into NRE PP.</li> </ol> <p>On the transmission side, government is planning to accelerate the grid connectivity in certain areas that could enable more penetration of Renewable Energy, especially in Industrial Estates and Economic Zone as demand center, in line with the RE Based Industrial Development (REBID) program.</p> <p>The carbon trading mechanism that has been launched for the power generation sector is expected to provide incentives to developers of NRE plants because they can sell carbon surpluses in the form of Emission Reduction Certificates (SPes). In spite, in its practice many improvements are still needed.</p> <p>Several financing options: First, feasibility gap financing, project development financing, and credit enhancement for investment (ADB, 2019), including green investments and bonds (ADB, 2022). Second, the newly launched blended finance mechanism for energy transition in Indonesia - the Energy Transition Mechanism (ETM) - which is a country platform to mobilize public and private sources of finance, and also Geothermal Resource Risk Mitigation (GREM) by World Bank.</p>	
<i>Due dates</i> *	2030	
<i>Financial commitment</i> *	USD 122.1 Billion	Estimated based on difference between Baseline and Intervention scenarios, financial requirement gap to increase the percentage of renewable energy mix, in the updated Roadmap for Sustainable Development Goals 2023-2030.
<i>Relevant target</i>	Improve energy intensity of the economy from 133.9 SBM/Mil Rp in 2021 to 125.96 SBM/Mil Rp in 2030	
<i>Action (s) &amp; Outcome (s)</i>	<p>The Government has recently released Government Regulation Number 33/2023 concerning Energy Conservation, which mandates the national implementation of energy efficiency programs, such as Mandatory Energy management (for energy consumer more than 4000 TOE/year), Minimum energy performance standard (MEPS) and Labelling of electrical appliances, Electrification and EV implementation and fuel economy standard, as well as raising public awareness through campaign and awards.</p> <p>In order to boost energy efficiency, it is essential to improve its financial benefits through the establishment of an Energy Service Company (ESCO). Accelerating the establishment of regulations to provide a legal umbrella for ESCOs will greatly help create a market for energy efficiency projects. Furthermore, the development of integrated financing platforms in the banking sector will encourage the development and adoption of energy efficiency projects in buildings and housing.</p> <p>The insurance industry and donor funding can also contribute to increasing trust between energy efficiency project actors, for example by developing an Energy Saving Insurance (ESI) scheme. ESI is a risk reduction package consisting of financial and non-financial elements designed to increase investor confidence in energy efficiency projects.</p>	
<i>Due dates</i>	2030	
<i>Financial commitment</i>	To be estimated (still in elaboration for calculations)	The updated Roadmap for Sustainable Development Goals 2023-2030 has identified financing needs at the aggregate energy demand per capita level. No dedicated estimates available for investments towards energy efficiency. However, since 2018, the investment of energy conservation in Indonesia has reached around USD 12 million per year in average.

<i>Relevant target</i>	By 2030, reduce annual greenhouse gas emissions in energy sector from 358 Mton CO2e (self-efforts) to 446 Mton CO2e (conditional with interventions), to align with goal of net zero emissions by 2060.	
<i>Action (s) &amp; Outcome (s)</i>	Based on The enhanced NDC, the reduction target of CM1 is 358 million ton CO2e, which will be achieved through: a) Renewable energy utilization through the development of renewable energy plants and increasing the supply of biofuels from low-carbon raw materials; b) Energy efficiency and conservation (Energy management, Minimum energy performance standard (MEPS) dan labelling, electrification and EV implementation); c) Clean coal technology as well as the development of gas turbine power station; d) Low carbon fuel utilization (city gas network and LPG for cooking); e) Ex-mining sites reclamation.	
<i>Due dates</i>	2030	
<i>Financial commitment</i>	USD 272.7 Billion	The funding needs to achieve this target have been calculated and submitted directly to the UNFCCC through the third biennial update report. The amount of financing required to achieve the climate action targets by 2030 is reported to be IDR 4,000.2 trillion (USD 272.7 billion). Note that this figure could potentially be double counting various cross-cutting indicators, e.g. the budget could be used to improve the energy mix, reduce GHG emissions, and support the poor to access electricity. This must be recognized as an unavoidable limitation of this study.
<i>Relevant target</i>	More than 4.76 GW of solar PV and 0.608 GW of wind capacity are installed by 2030, up from around 0.4 GW in 2022.	
<i>Action (s) &amp; Outcome (s)</i>	Aligned to match the actions towards the target on increasing renewable energy share in the primary energy mix. Additional power plant capacity up to 2030 for Solar PP 4.68 GW and Wind PP 0.597 GW (Source: PLN's National Electricity Supply Business Plan 2021-2030)	The development plan is based on RUPTL PT PLN 2021-2030. Current installed capacity (Q3 2023): solar: 344.6 MW and wind : 154 MW
<i>Due dates</i>	2030	
<i>Financial commitment</i>	USD 5 Billion	Estimated from existing project in Indonesia (PLTS Cirata around 0.8 million/MW and PLTB Sidrap around 1.8 million/MW)