

Indonesia's Current CIPP Expected To Have A Limited Impact On Renewables Growth And Coal Phase-Out

22 Nov 2023

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Key View

- The Comprehensive Investment And Policy Plan (CIPP) increases the market's previously outlined JETP ambitions to reduce power carbon emissions, adding upside risks to our renewables and hydropower forecasts.
- The JETP's pledged USD20bn is insufficient to spur strong renewables growth, informing us to maintain our view that renewables' share of the power mix will remain at 22%, below the 44% target.
- We expect coal-fired power to remain the dominant power type, contributing over 60% of the power mix for the coming 10 years, as Indonesia's commitment to coal is still strong, with planned gradual phase-out only happening from the end of the decade.

The CIPP increases the market's previously outlined JETP ambitions to reduce power carbon emissions, adding upside risks to our renewables and hydropower forecasts. On November 1 2023, about a year after the [signing of the](#)

JETP, Indonesia launched the draft JETP CIPP. The CIPP unveils energy transition targets, details of funding sources, and key areas for investment. As shown in the table below, the 2030 renewables target has been increased from 34% to 44%, and the carbon emissions target has been increased to peak at 250mn tonnes rather than 290mn tonnes by 2030. We expect the step up in ambitions to provide greater drive for renewable growth. The plan also gives clarity to developers and investors on the five areas of the power sector that the government will channel funding towards. These are transmission and distribution networks, retirement and phase-out of coal-fired power plants, dispatchable renewables (such as biomass and geothermal power), variable renewables (such as solar photovoltaics), and enhancement of its renewable energy supply chain. This is in addition to identifying policy enablers for Indonesia’s low-carbon energy transition. However, as the draft CIPP only presents broad outlines for achieving the above targets, we expect more details on the specifics of funding allocation, priorities of projects, and policies are needed before revising our forecasts. Moreover, the current CIPP plan is still in the draft stages and will be updated in 2024. Therefore, we currently consider the CIPP as an upside risk to our forecast.

New Targets Show Higher Ambitions For Renewables

Focus Area	2022 JETP Target	2023 CIPP Target*
Renewables share	34% (2030)	44% (2030)
Coal-fired power phase-out	5.2GW (2030)	1.7GW (2040)
Power sector emissions	Peak at 290mn metric tons (2030)	Peak at 250mn metric tons (2030)
Net Zero	Power sector net zero by 2050	Power sector net zero by 2050

**stated to be specific to on-grid power only. Source: ASEAN, CIPP, Local sources, BMI*

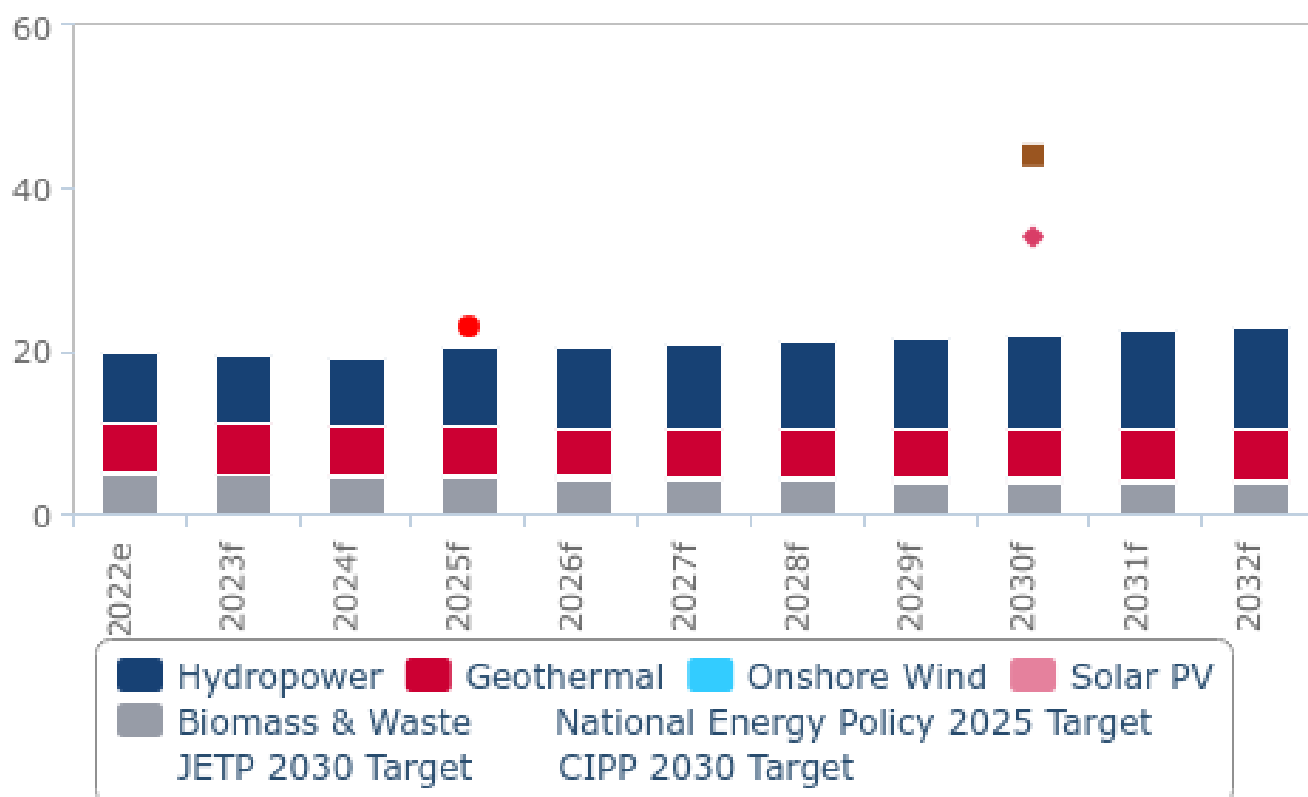
The JETP’s pledged USD20bn is insufficient to spur strong renewables growth, informing us to maintain our view that renewables’ share of the power mix will remain at 22%, below the 44% target. The CIPP proposes that USD19.7bn is needed to upgrade the transmission grid infrastructure, USD49.2bn for dispatchable renewables such as hydropower, geothermal and biomass, as well as USD25.7bn for intermittent renewables, which will be required to reach the

ambitious renewable targets. This is almost five times what has been pledged by the Group of Seven (G7) in the JETP signed in November 2022. Moreover, the CIPP plan focusses almost half of its renewable funding on increasing dispatchable sources, aiming for these to account for 30% of total power mix by 2030, which adds upside risks to our total dispatchable 2030 forecasts of 17%. We maintain our conservative forecasts as such renewables types face higher technology risks than solar and wind, from long lead times, higher levelized costs, risks to biomass feedstock supply and sustainability, as well as exploration risks of geothermal resources, undermining Indonesia's ability to meet the 30% renewables target.

Additionally, the CIPP outlines that only 0.8% of the funding will be provided in grants, leaving most of the public financing (USD10bn) as concessional and non-concessional loans. Moreover, USD10bn of the funding will be private finance, consisting of debt, and non-concessional loans at market rates. This will increase the debt and financing costs of Indonesia's energy transition, and potentially deter fossil fuel power producers and power plant developers to ramp up their support for renewables development.

Upside Risks To Renewables, Current Developments Lacking To Meet Targets

Indonesia - Total Renewable Power Generation by Type & Targets, % of power mix



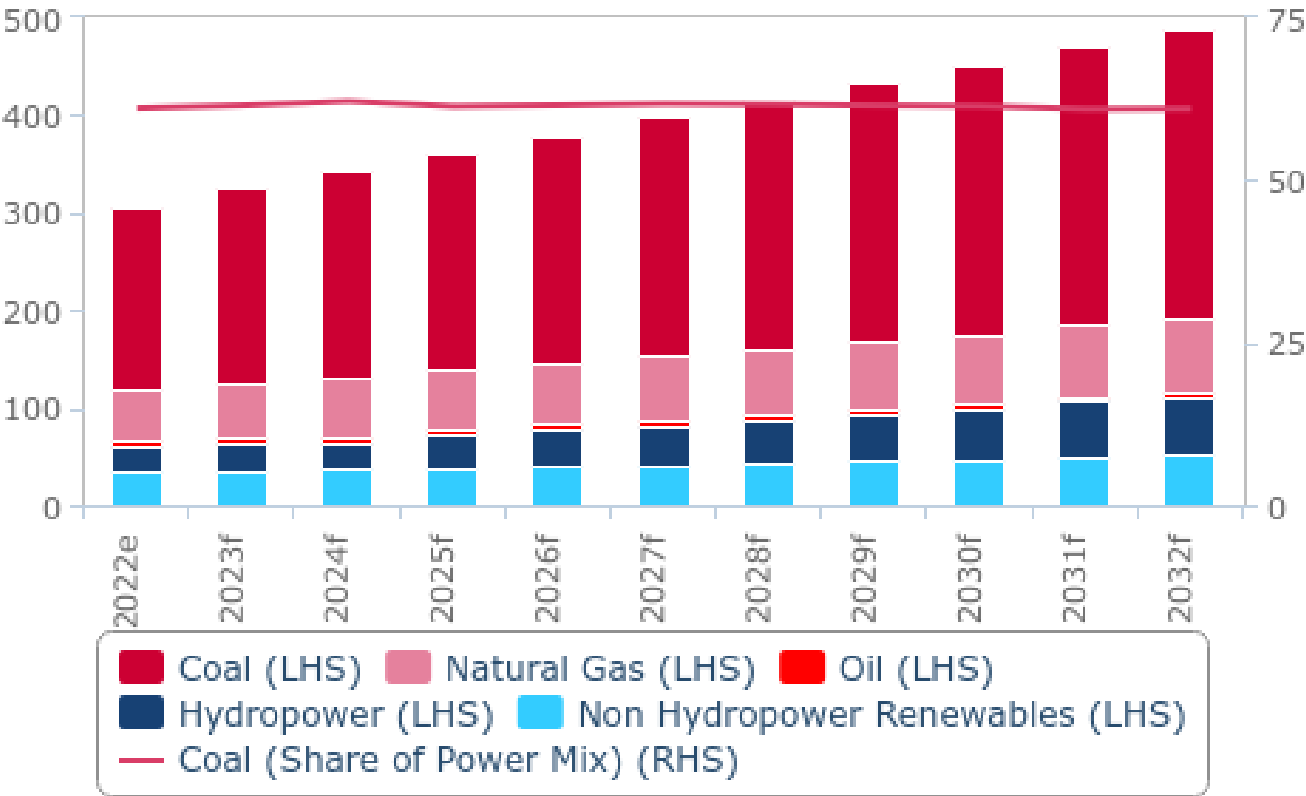
e/f = BMI estimate/forecast. Source: EIA, IRENA, GOI, CIPP, Local sources, BMI

We expect coal-fired power to remain the dominant power type, contributing over 60% of the power mix for the coming 10 years, as Indonesia’s commitment to coal is still strong, with planned gradual phase-out only happening from the end of the decade. The CIPP states that the market will phase out 1.7GW of coal-fired power capacity by 2040. The first plant to be retired will be the Cirebon 1 plant with a total capacity of 660MW, though outside of our forecast period in 2035. We highlight that this presents a smaller commitment to phasing out coal compared to the 5.2GW by 2030 announced alongside the JETP in 2022, shown by the table above. The plan also outlines a long-term target of growing coal-fired power capacity to 2030, only to have it slowly phased-out from 2035 to 2050. The diminished short-term phase-out reflects the market’s favourable stance on relying on coal, and we expect it will be a sticking point for stakeholders. This supports our coal-fired generation growth forecasts that we expect will average 4.8% every year until 2032.

We also highlight that the reduced coal-fired power phase-out plan contradicts the market's strengthening of their power emissions reductions targets to 250mn tonnes by 2030, undermining the market's commitment to decarbonising the power sector. We also expect that a continuation of coal-fired power, and the government support that the industry receives will continue to impede renewable growth. For example, the market regulates and subsidises coal prices, reducing the maximum price for coal to USD70 per tonne, and limiting the competitiveness of renewable power generators. Additionally, Indonesia's carbon price traded at about IDR69,600 (USD4.45) per tonne, which is well below regional and global peers, such as Singapore, Japan, South Africa and European markets does not incentivize clean technology.

Coal-Fired Power To Maintain Dominance In Indonesia's Power Supply

Indonesia - Total Power Generation by Type, TWh, & Coal's Share Of Power Mix, %



e/f = BMI estimate/forecast. Source: EIA, IRENA, Local sources, BMI

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