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Climate Investment Update

Indonesia: Kick-starting carbon trading

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Climate Change - Global

- Indonesia will launch an innovative cap-tax-and-trade system in 2025 that will expand on its recently implemented ETS
- Existing ETS only covers coal-fired plants connected to the national grid, with "captive plants" in industry a concern
- Lack of regulation on the use of coal in industry is a key decarbonisation risk for Indonesia, in our view

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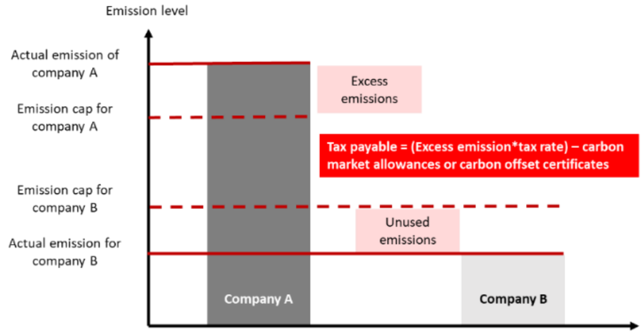
Uncertainties remain: The first phase of Indonesia's emission trading system (ETS) started in 1H23. Ninety-nine coal-fired plants with at least 100MW of generation capacity, all of which are directly connected to the power grids owned by the state utility Perusahaan Listrik Negara (PLN), are included in the first phase of the ETS. It is equivalent to 81.4% of the country's national power generation capacity. A carbon exchange that facilitates emissions allowance trading finally launched on 26 September. However, details like the "banking" of allowances and how many carbon credits can be used to fulfil the compliance obligations are still unknown to the public.

Expanding the scope: Phase two and three of the ETS will start in 2025 and 2028 respectively. In the later phases, oil and gas-fired power plants and other coal-fired plants that are not currently connected to the PLN's grid will also be included. Yet, it remains unclear whether "captive" coal fired plants – plants that solely supply electricity to industry and are not grid connected – will be included in the later phase. The implementation will depend on "the readiness of the relevant sector and taking into account things like, economic conditions, readiness, impacts, and/or scale".[1]

Adding a carbon tax: A carbon tax will be integrated into the existing "cap-and-trade" ETS to form a "cap-tax-and-trade" system, from 2025. Emissions that exceed the output-based emission cap will be subject to a tax (see: Figure 1). The expanded system will be adopted in 2025.

Figure 1: Cap-tax-and-trade system



Source: ASEAN+3 Macroeconomic Research Office, HSBC

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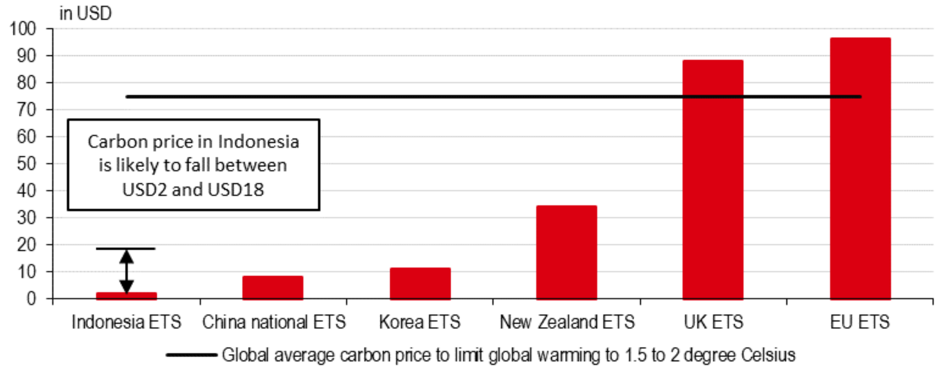
[1] MEMR's Regulation 16/2022 "Guidelines for Carbon Economic Value Implementation for the Power Generation Sub-sector"

Important part of the emission reduction equation: The current ETS only covers the power generation sector. Off-grid coal-fired plants will potentially be covered in phase two of the ETS. However, there are also significant numbers of "captive" coal plants, operated solely for electricity supply to industry. Emissions from captive coal plants in the industrial sector are rising strongly. Their power capacities have risen from 1.4GW in 2013 to 10.8GW in 2023 and contribute to nearly 25% of the current operating coal capacity[2].

The rise in manufacturing and processing of nickel alongside other critical metals for clean energy technologies is leading to an increase in the number of captive coal plants being constructed. Also, Indonesia imposed a moratorium on new coal-fired power plants but granted exemptions for captive plants. Among the coal power capacity that is under construction or in pre-construction, around 58% is captive coal plants[3]. We think the large-scale growth of captive coal-fired plants in metal processing might overshadow the effort in reducing emissions in the ETS covered coal power generation plants.

Is Indonesia making an effort? In our view, the adoption of the emission trading system shows the commitment of Indonesia to reducing coal emissions. However, current efforts might not be sufficient to incentivise a shift to cleaner sources of power generation. The energy ministry indicated that the carbon price is likely to be between USD2 and USD18 per tonne[4], but substantial reductions in coal use will only be triggered at prices of at least USD30 per tonne[5]. (see Figure 2). Also, the growing number of captive coal fired plants installed that sit outside the ETS, is concerning, in our view, and poses a significant risk to Indonesia's emissions goals being met.

Figure 2: Carbon price in Indonesia ETS compared to elsewhere in the World



Source: World Bank, IMF, HSBC

The policymakers are still uncertain as to whether the cap-tax-and-trade system will be expanded to cover industrial sectors in 2025. Regardless, the start of the transition period of EU Carbon Border Adjustment Mechanism, the work to launch the Just Energy Transition Plan and significant international attention are keeping the pressure on Indonesia to step up its climate actions, especially on phasing out coal-fired plants in all sectors and accelerating the development of renewable energy.

The global climate calendar: upcoming events

2023	Location	Event
2-6 October	Montreal, Canada	Adaptation Futures Conference 2023
9-12 October	Riyadh, Saudi Arabia	Middle East and North Africa Climate Week (MENACW 2023)
11-12 October	Bangkok, Thailand	Global Plastics Summit
23-27 October	Panama City, Panama	Latin America and Caribbean Climate Week
November	Johor, Malaysia	Asia-Pacific Climate Week
30 November-12 December	Dubai, UAE	UNFCCC COP 28

Source: HSBC

[2] Parapat J., Hasan K., Emerging captive coal power: Dark clouds on Indonesia's clean energy horizon, September 2023
[3] Boom and Bust Coal 2023: Tracking the global coal plant pipeline, Global Energy Monitor, April 2023
[4] Indonesia launches carbon trading mechanism for coal power plants, Reuters, February 2022
[5] Ordonez J. A., Coal vs. renewables: Least-cost optimization of the Indonesian power sector, June 2022

Disclosure appendix

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