



# Update on the regulatory framework for carbon pricing instrument in Indonesia

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September 28, 2023

# Carbon pricing instrument to meet NDC target

## Indonesia's Enhanced NDC

Sector	GHG Emission Level 2010* (MTon CO <sub>2</sub> -eq)	GHG Emission Level 2030			GHG Emission Reduction				Annual Average Growth BAU (2010-2030)	Average Growth 2000-2012
		MTon CO <sub>2</sub> -eq			MTon CO <sub>2</sub> -eq		% of Total BaU			
		BaU	CM1	CM2	CM1	CM2	CM1	CM2		
1. Energy*	453.2	1,669	1,311	1,223	358	446	12.5%	15.5%	6.7%	4.50%
2. Waste	88	296	256	253	40	43.5	1.4%	1.5%	6.3%	4.00%
3. IPPU	36	69.6	63	61	7	9	0.2%	0.3%	3.4%	0.10%
4. Agriculture	110.5	119.66	110	108	10	12	0.3%	0.4%	0.4%	1.30%
5. Forestry and Other Land Uses (FOLU)**	647	714	214	-15	500	729	17.4%	25.4%	0.5%	2.70%
<b>TOTAL</b>	<b>1,334</b>	<b>2,869</b>	<b>1,953</b>	<b>1,632</b>	<b>915</b>	<b>1,240</b>	<b>31.89%</b>	<b>43.20%</b>	<b>3.9%</b>	<b>3.20%</b>

Notes: **CM1**= Counter Measure 1 (*unconditional mitigation scenario*)  
**CM2**= Counter Measure 2 (*conditional mitigation scenario*)

\* ) Including fugitive.

\*\* ) Including emission from estate and timber plantations.

- Market mechanism was mentioned in the I-NDC as a measure to meet NDC target of Indonesia;
- NDC target increased from 29% to 31.89%, submitted to UNFCCC prior to COP 27 in Egypt;
- > USD 280 billions required to meet NDC target by 2030, only about 30% could be covered by state budget. Implementation of carbon pricing could help in meeting the gap;
- World Bank through PMR has supported government in preparing study on market-based instrument for Indonesia. Including in the support was the preparation of MRV system power generation and cement industries;
- Preparation of carbon pricing regulatory framework started in 2019 involving NDC-related ministries, such as led by Ministry of Environment and Forestry (MoEF);

# Regulatory framework for carbon pricing in Indonesia

## Presidential Regulation No. 98/2021

- 4 instruments introduced:
  - Carbon trading (ETS and offset)
  - Carbon levy (tax and excise)
  - Result-based Payment
  - Other mechanism
- Each NDC sector has to develop roadmap for NDC and carbon pricing
- Allow 6.2 and 6.4 with CA, but after sectoral target achieved;
- Establishment of Indonesia's crediting mechanism;
  - Methodology: approved by MoEF, issued by National Standard Agency, or approved by UNFCCC;
  - > 45 methodologies have been approved by MoEF, no additionality assessment;
  - Open for mutual recognition;
- All mitigation and adaptation measures have to be registered in National Registry System
- Implementing regulations issued/drafted:
  - MoEF Regulation No. 21/2022
  - MoEF Regulation No. 7/2023
  - MoEF draft Regulation for international carbon trading;

## Law No. 7/2021

- Tax on purchasing goods with carbon content
- Tax on activities' emission
- Participation in ETS to reduce tax burden
- Implementing regulations issued/prepared:
  - MEMR Regulation No. 16/2022: ETS and offset for power sector;
  - Draft MoF regulation on tax rate;
  - Draft MoF regulation on procedures for carbon tax collection
  - Draft Government Regulation on Carbon Tax Roadmap

## Law No. 4/2023 on Development and Strengthening Financial Sector

- Chapter on carbon trading
  - Unit carbon as asset class
  - Unit carbon to be traded in exchange or through direct trading
- Implementing regulations issued/prepared:
  - Financial Service Authority: Regulation on the carbon exchange

# Indonesia Carbon Exchange

- Launched on 26 September 2023
- First transaction: about 460k tCO<sub>2</sub>
- Price: IDR 69.600 (ca. USD 3/tCO<sub>2</sub>)
- Project: geothermal (initially VCU registered under Verra, but converted into Emission Reduction Certificate (SPE))
- President's direction during launching:
  - Use international carbon standard as reference, use technology for transaction
  - Start with domestic but open for international market;
  - Open for VCM and make sure that the use of international standard will not jeopardize national interest;

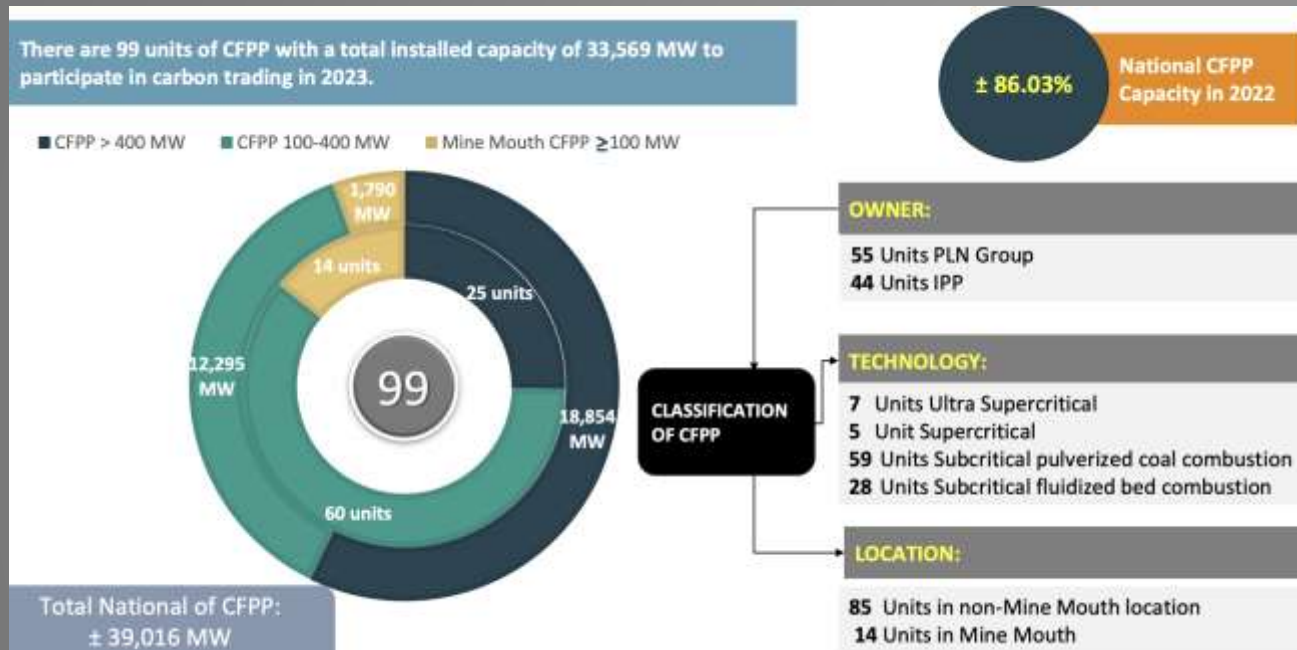


# ETS in power generation sector

- Mandated by Law No. 7/2021, started with CFPP and to be decided before 2025 for expansion for other power generation
  - Basis for implementation: MEMR Regulation No. 16/2022
  - Launched on 22 February 2023;
- Designed under a tax regime
  - Tax due
  - Cap + trade + tax
- Tax rate (still a draft): 120% of price of carbon (draft) with a floor price of IDR 30.000/tCO<sub>2</sub> (around USD 2/tCO<sub>2</sub>);
- No limitation of carbon credit to offset allowance;
  - Intention: to maximize opportunity for RE and EE
- Allowance based on the emission intensity in the previous year:
  - Allowance: benchmark (tCO<sub>2</sub>/MWh) x emission in the previous year (tCO<sub>2</sub>)/emission intensity from previous year (tCO<sub>2</sub>/MWh)
  - Allowance is 100% of cap
  - For new entrance: allocation is the same with similar technology and capacity that have been in operation



# ETS participants



- Started with on-grid CFPP
  - 2023: installed capacity > 100 MW
  - 2024: adding CFPP with capacity 25 MW – 100 MW;
  - Non-CFPP considered to be included in 2025;
- Captive power plants scheduled to follow in 2025
- Phase 1: 2022 – 2024, Phase 2: 2025 – 2027; Phase 3: 2028 – 2030
- Cap (emission intensity) determined based on capacity:
  - Non mine-mouth 25 MW – 100 MW: 1.297 tCO<sub>2</sub>/MWh (starting in 2024)
  - Mine-mouth > 100 MW: 1.089 tCO<sub>2</sub>/MWh
  - Non mine-mouth 100 MW – 400 MW: 1.011 tCO<sub>2</sub>/MWh
  - Non mine-mouth > 400 MW: 0.911 tCO<sub>2</sub>/MWh
  - Intention to reduce emission intensity in each period

Source: MEMR, 2023

# Challenges of carbon pricing implementation in Indonesia

- ETS: Cap setting needs to be reconsidered
  - Consumer tariff for electricity subsidized while coal price for power sector indirectly subsidized (capped at USD 70/ton)
  - Electricity subsidy in 2022: IDR 59.8 trillions (USD 4.1 billions);
  - Any increase in the operational cost of CFPP due to the change in regulation (government force majeure) will be passed to the state-owned utility company, which later on passed to government
  - → strict cap will lead to the increase in subsidy
  - → needs to find a way of setting cap without put heavy burden on state budget (subsidy)
- Policy alignment: prioritizing meeting NDC target vs need of funding for mitigation
  - Government priority is to meet NDC target, thus any mitigation outcome has to be used for meeting NDC target first
  - State budget would only be able to cover about 35% of financing for meeting NDC target
  - → as per President direction, needs to adjust the mechanism in order to open for international market;
- Can domestic crediting mechanism be accepted internationally?
  - Methodology approved by Ministry of Environment and Forestry does not include additionality;
  - Current domestic mechanism is not compatible with international mechanism;
  - → need to adjust mechanism and methodology in order to align with international standard.
- Expansion of ETS to other sector
  - Starting with inventory for oil and gas sector with the intention to expand ETS to oil & gas
  - No clarity yet on other sector
  - → need to finalize carbon pricing roadmap

Thank you

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