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## BACKGROUND NOTE

# SPARK Dialogue

## Carbon Markets and Pricing for the Energy Transition

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Implemented on behalf of the Southeast Asia Energy Transition Partnership by Asia Clean Energy Partners



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# SPARK Dialogue #1: Carbon Markets and Pricing for the Energy Transition

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## Introduction and Context

Southeast Asia is entering a new chapter in its energy transition; the cost of solar and wind energy has dropped by over 50% in the past decade, making renewables increasingly competitive with coal and gas-fired generation. Meanwhile, the cost of battery storage continues to decline, enabling grid flexibility and helping manage the variability in renewable energy generation.<sup>1</sup> At the same time, new forms of electric mobility are disrupting transportation. Corporate demand for clean energy is rising, driven by increasing needs for decarbonization of heat and power, as well as the surge in construction of data centers in the region to meet the demand for AI computing power. This corporate demand is being addressed through mechanisms like direct power purchase agreements (direct PPAs), which are also bringing more new renewable energy (RE) into power grids. As a result, the management of these grids can be decentralized, linking different economic sectors in new ways (i.e., transport and power, buildings and power) - necessitating regulatory innovation.

Simultaneously, the region's energy sector is becoming increasingly integrated. Regional energy trade, including cross-border power transmission, is growing, driven by both economic opportunity and changes in geopolitics. These shifts align positively with countries' climate ambitions, as the above-mentioned trends in the energy sector will drive increases in the rate and scale of decarbonization. **The use of carbon markets and related instruments such as Internationally Transferred Mitigation Outcomes (ITMOs) and other emission reduction units, must be viewed not just as tools to reduce emissions, but as a regulatory instrument to drive investment, lower energy costs, foster regional cooperation, and support long-term, sustainable, and abundant growth.** A well-designed carbon pricing framework can help reshape industries, attract finance at scale, and support economic competitiveness in a decarbonizing world.

Carbon markets have historically taken root in Europe and North America, but their use in the Southeast Asia region remains limited and at an early stage of development. Advanced instruments like carbon taxes, emissions trading systems (ETS), and credit mechanisms are still being piloted, with political support varying across countries<sup>2</sup> like the EU's Carbon Border Adjustment Mechanism and implementation of Article 6 under the Paris Agreement are now creating incentives for these countries to build credible carbon pricing systems.<sup>3</sup> Against this

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<sup>1</sup> Enerdata, "What Lies Ahead for the ASEAN Power Sector? Decarbonising ASEAN Power," *Enerdata Executive Briefing*, May 22, 2025.

<https://www.enerdata.net/publications/executive-briefing/decarbonising-asean-power.html>.

<sup>2</sup> ADB SEADS, "Carbon Pricing: Closing the Loophole in ASEAN's Climate Commitment," *SEADS Articles*, January 12, 2024. <https://seads.adb.org/articles/carbon-pricing-closing-loophole-aseans-climate-commitment>.

<sup>3</sup> Subramit Das, "The Case for Carbon Taxes in Southeast Asia," *East Asia Forum*, February 22, 2025. <https://eastasiaforum.org/2025/02/22/the-case-for-carbon-taxes-in-southeast-asia/>.

backdrop, the region has an opportunity to envision a design for a regional carbon market that fits its objectives.

### State of Play: Carbon Markets and Pricing in Southeast Asia

**Carbon markets, Renewable Energy Certificates (RECs) and other carbon-pricing instruments are emerging as important tools** to help enable and accelerate the shift in Southeast Asia towards low-carbon approaches. At the same time, ASEAN Member States are facing escalating pressure to implement robust carbon-pricing frameworks<sup>4</sup>. Nearly all countries in ASEAN have pledged to achieve net-zero or carbon-neutral targets and intend to contribute to the ASEAN Strategy for Carbon Neutrality<sup>5</sup>. One of the core strategies outlined in their plans is the role of carbon markets and pricing as a catalyst in the transition to a low-carbon economy. Yet, the region faces several challenges that hinder the implementation of carbon markets, including the lack of a shared vision regarding the use of carbon markets to achieve various policy objectives, legacy dependencies on fossil fuel industries, lack of technical expertise, insufficient financial support, and, as a result, an absence of comprehensive market frameworks.<sup>6</sup> To effectively implement carbon markets and pricing mechanisms in ASEAN, these barriers must be addressed directly.

Well-designed carbon pricing frameworks can help reduce long-term costs of the energy system, attract green investment at scale, and support job creation. To unleash these benefits, it will be important to ensure that carbon markets are not only designed to achieve compliance with an environmental outcome (a climate target) but also as economic/financial instruments to drive sustainable growth.

*Table 1: Overview of policy progress on carbon markets and pricing in Vietnam, Indonesia, and Philippines, 2025<sup>7</sup>*

Country	Emissions Trading Scheme	Carbon Tax	Voluntary Carbon Market
Vietnam	...	X	O
Indonesia	O	...	O
Philippines	X	X	O

O: Implemented, ...: Under development, X: Not implemented

**Source:** Reccessary

Here are a few recent developments related to carbon markets and pricing in Indonesia, Vietnam and the Philippines:

- **In Indonesia**, the Indonesia Stock Exchange launched the Indonesia Carbon Exchange (IDX Carbon) in 2023 to provide carbon trading infrastructure for electric

<sup>4</sup> Aldilla Noor Rakhiemah et al., "Progress of Carbon Pricing in ASEAN to Support the Shift Towards a Low-Carbon Economy," *Policy Brief*, ACCEPT II, ASEAN Centre for Energy, February 29, 2024, <https://accept.aseanenergy.org/progress-of-carbon-pricing-in-asean>.

<sup>5</sup> ASEAN Centre for Energy, *8th ASEAN Energy Outlook* (Jakarta: ASEAN Centre for Energy, 2024), <https://aseanenergy.org/wp-content/uploads/2024/09/8th-ASEAN-Energy-Outlook.pdf>.

<sup>6</sup> See citation 4

<sup>7</sup> Hsu Tsu-lin, "Southeast Asia Weighs Unified ETS to Boost Carbon Prices, Overcome Policy Delays," *Reccessary*, March 11, 2025, <https://www.reccessary.com/en/news/build-aseam-regional-emissions-trading-system>.



power plants.<sup>8</sup> In January 2025, Indonesia began offering carbon credit certificates to international buyers and made available 1.78 million tons of CO<sub>2</sub> credits from PLN power plants.<sup>9</sup> The country has an NDC to cut CO<sub>2</sub> emissions by 31.89% unconditionally, and a 2060 or sooner net-zero emissions target.<sup>10</sup>

- **Vietnam** recently formalized its carbon market framework under Decision 232/QĐ-TTg (January 2025), building on earlier legal foundations such as Resolution 24-NQ/TW (2013), Decision 2053/QĐ-TTg (2016), the Environmental Protection Law (2020), and Decree 06/2022/ND-CP (amended by Decree 119/2025/ND-CP). These documents collectively<sup>11</sup>:
  - o Recognize carbon markets as an economic tool and authorize Article 6 engagement.
  - o Mandate GHG inventory, MRV, registry, and allowance frameworks.
  - o Establish national definitions for trading allowances and credits; and
  - o Set out a phased development roadmap, including pilot carbon exchange operations from 2025 and full ETS implementation by 2029.

The updated Decree 119 clarifies the pilot ETS design: beginning in August 2025 with major emitters in the power, steel, and cement sectors; allocating free, intensity-based allowances alongside up to 30% use of domestic or Article 6 credits; operationalizing the domestic exchange and national registry through 2028; and introducing auctioned allowances and global market linkage from 2029.<sup>12</sup>

- **The Philippines** is emerging as a key player in the global carbon market, with momentum building behind a carbon pricing framework. In early 2024, the House of Representatives passed House Bill No. 11375,<sup>13</sup> which signals intent to institutionalize carbon pricing as part of the country's climate strategy. Notably, the forestry sector has already pioneered voluntary carbon market initiatives, offering early lessons for national implementation.

There is also a growing rationale and momentum for regional cooperation. Southeast Asia trades large volumes of electricity, industrial goods, and agricultural commodities across borders, yet the carbon implications of this activity are not captured in national accounting. This opens the door for discussions on regional crediting frameworks, cross-border RECs, and the recognition of embedded emissions in traded energy.

<sup>8</sup> S&P Global Commodity Insights, "Indonesia Launches International Carbon Trading on IDX with Five Power Plants," *S&P Global Commodity Insights*, January 20, 2025, <https://www.spglobal.com/commodity-insights/en/news-research/latest-news/energy-transition/012025-indonesia-launches-international-carbon-trading-on-idx-with-five-power-plants>.

<sup>9</sup> Sheany Yasuko Lai, "Indonesia Opens Carbon Credit Market to Foreign Buyers to Help Finance Climate Action," *Arab News*, January 20, 2025, <https://www.arabnews.com/node/2587122/amp>.

<sup>10</sup> Indonesia Ministry of Environment and Forestry, *Enhanced NDC Indonesia* (United Nations Framework Convention on Climate Change, September 23, 2022), [https://unfccc.int/sites/default/files/NDC/2022-09/23.09.2022\\_Enhanced%20NDC%20Indonesia.pdf](https://unfccc.int/sites/default/files/NDC/2022-09/23.09.2022_Enhanced%20NDC%20Indonesia.pdf).

<sup>11</sup> *Thitruongcarbon.com*, "Decree No. 119/2025/ND-CP: Everything You Need to Know," *Thitruongcarbon*, June 11, 2025, <https://thitruongcarbon.com/en/2025/06/11/decreed-no-119-2025-nd-cp-everything-you-need-to-know/>.

<sup>12</sup> Reuters, "Vietnam Launches First Phase of Emissions Trading Scheme," *Reuters*, June 11, 2025, <https://www.reuters.com/sustainability/climate-energy/vietnam-launches-first-phase-emissions-trading-scheme-2025-06-11/>.

<sup>13</sup> Senate of the Philippines, "House Bill No. 11375, 8th Congress," *Senate.gov.ph*, accessed (insert access date), <https://ldr.senate.gov.ph/bills/house-bill-no-11375-8th-congress-republic>.