

Indonesia as The Front-Runner for CCS/CCUS Development in Asia

CCUS 2024: Capturing a Net Zero Future

October 16th, 2024

Indonesia CCS Center (ICCSC) takes on the role of an **accelerator**, connecting stakeholders within the CCS value chain to drive development

To advance the development of Indonesia's carbon capture and storage (CCS) technology, the Coordinating Ministry for Maritime Affairs and Investment (CMMAI) collaborates with Indonesia CCS Center (ICCSC) with the aim of **establishing Indonesia as a key regional hub for CCS deployment**.

Our strategic roles in supporting CCS deployment



Upskilling

- Comprehensive technical competency
- Policy framework
- Business scheme



Market Intelligence

Providing regional carbon market intelligence to local CCS players



Practical Guidelines

Publishing practical guidelines to monetize carbon emissions



Commercial Services

Tailoring practical guidelines as consultancy services for local CCS players

ICCSC as a bridge between numerous CCS stakeholders

Government and institutions



Regional strategic partners



Industry players (ICCSC Corporate Members)



International strategic partners

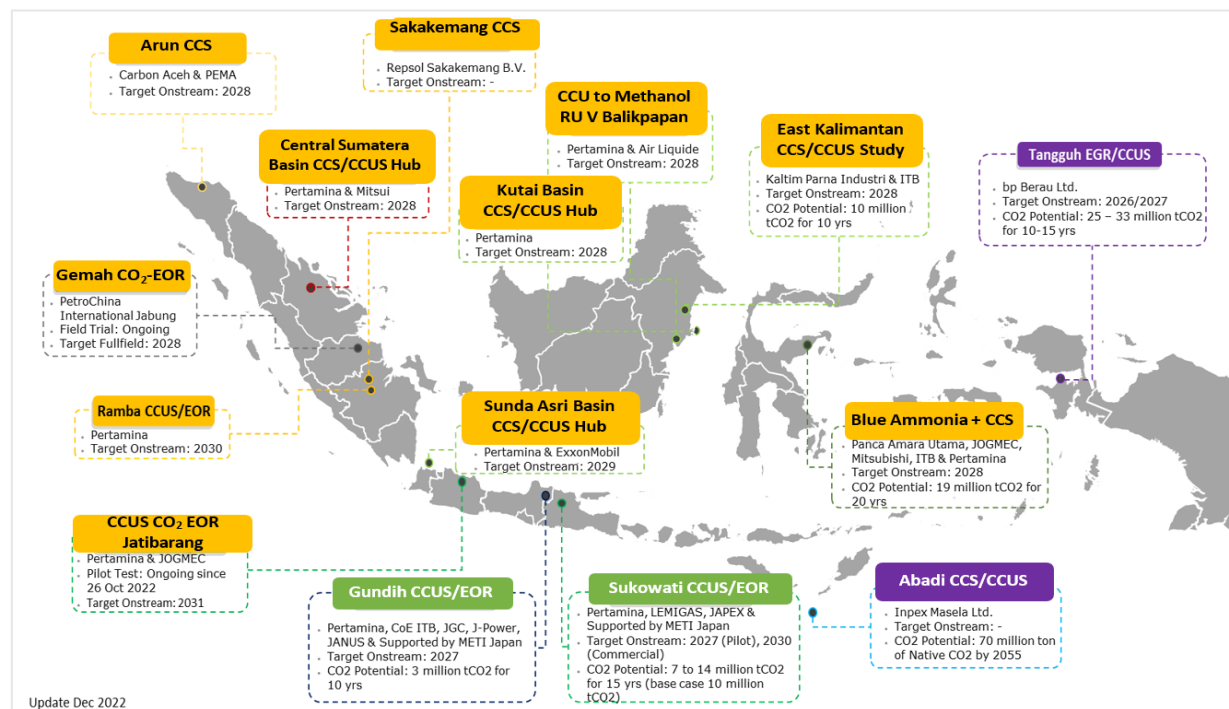
Utilizing Indonesia's competitive advantages such as large storage capacity and strategic location, **Indonesia** aims to become a regional CCS hub

Large storage capacity

Storage capacity **577.8 Gt CO₂**, capable of fulfilling domestic and regional demands

Strong downstream industries

Great potential for **low-carbon products** development



Rapid development

15 pre-projects (total investments ~28B USD) are currently under exploration, with a new Pertamina – Exxon project partnership announced

Enhanced Regulatory Framework

e.g., **Presidential Decree 14/2024** on CCS, **Presidential Decree 98/2021** on Carbon Pricing

Strategic location

Strategic position within Asia-Pacific allows for **cross-border CCS operations**

Partnership Advantage

Established international partnerships such as, **CCS cross-border LOI with Singapore**, and **ICCSC** as a national think tank as an enabler.

Indonesia's partnerships with the US and Singapore underscore its vital role in the energy transition, positioning CCS as a key investment opportunity. The LOI with Singapore to create a cross-border CCS hub further highlights its importance as a regional decarbonization solution.



President Joko Widodo and US President Joe Biden meeting on 11/10/23

SEKRETARIAT
PRESIDEN RI



Deputy Secretary (Industry) of the MTI, Singapore Keith Tan, and Indonesia Deputy Coordinating Minister for CMMAI, Jodi Mahardi, signed a Letter of Intent to collaborate on carbon capture and storage

Harnessing U.S. Private Sector Investments and Bilateral Engagement

Indonesia has secured an investment opportunity with ExxonMobil of up to \$15 billion, including plans for clean petrochemical refinery development, as discussed between the US and Indonesian presidents.

Advancement in Cross-Border CCS Hub

Indonesia and Singapore are the first countries in Southeast Asia to establish a bilateral arrangement for cross-border CCS, with plans to formalize a legally binding agreement enabling CO2 transport and storage.

Source: Sekretariat Presiden RI (2023), The White House (2023),

In order to support the deployment of CCS in Indonesia, the Government of Indonesia has implemented a set of policies and regulatory frameworks

Current Policy Instruments			Actively Progressing
Presidential Regulation 14/2024 on CCS Regulates the implementation of CCS by beyond, including injection operations in saline aquifers, cross-border CCS operations, detailed MRV process, CCS Task Force formation, and emissions trading	Ministry of Energy & Mineral Resources Regulation 2/2023 Regulates CCS and CCUS implementation in upstream oil and gas activities, including the enforcement, implementation, MRV, and economic provisions	Presidential Regulation 98/2021 on Carbon Pricing Regulates carbon pricing to achieve NDC, includes the price administration, transparency framework, and guidance on financing	International Collaborations <ul style="list-style-type: none"> • Partnerships with UN Carbon Removal Lead, US DOE, Norway Embassy, Canada (University of Calgary), Australia (Global CCS Institute) • G2G bilateral MoU for cross-border CCS operations (current discussion with regional countries)
Financial Authority Regulation 14/2023 Regulates carbon trading in the Indonesia Carbon Exchange (IDXCarbon)	National Standards The published of technical standard for CCS operation by adopting ISO/TC 265: (focusing on geological storage)	SKK Migas Working Guidelines (PTK-070/SKKIA0000/2024/S9) On the management of CCS and CCUS at the oil and gas working areas of the cooperation contract contractors	
			Regulatory Development <ul style="list-style-type: none"> • Drafting of ministerial regulations derived from presidential regulations. • Standard Business Field Classification related to CO2 for CCS.

Source: ICCSC Analysis

To boost its competitive edge, ICCSC, in partnership with the World Bank and Indonesia's SOEs, has **crafted a comprehensive CCS roadmap** outlining strategies for the successful deployment and scaling of CCS in Indonesia.

