

The CCUS Market in Asia-Pacific

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Some 29% of the CCUS projects in Asia lie in Southeast Asian countries, with the remaining 71% in other east Asian countries, including China, Japan, and South Korea. Interestingly, all the commercial CCUS projects in Southeast Asia were announced in 2021; unlike any other regions in Asia or globally which focus on pilot and demonstration projects, both Indonesia and Malaysia are targeting two of the largest commercial CCUS projects in the world at Abadi and Kasawari upstream developments. A range of factors makes Southeast Asia well suited to successfully deploying CCUS technology and supporting the industry's growth. Firstly, the region has a long history in oil and gas production, deep-rooted industry expertise, a skilled workforce, an existing supply chain and established infrastructure with pipelines and injection wells that could be reused for CO₂ transmission. It also has vast potential for permanent underground sequestration, with over 800 gigatonnes (Gt) of potential CO₂ storage capacity in depleted oil and gas fields and saline aquifers, according to Rystad analysis. The region however, is lacking in policy-investment support from the governments, although there has been some initiative in framing a CCUS specific framework, with multiple countries like Malaysia, Indonesia, Thailand, and Vietnam under way with implementing a carbon price soon.

The commercial CCUS projects landscape in Southeast Asia is dominated by NOCs/IOCs, with 40 % of the announced commercial CCUS projects being developed by NOCs, 30% by oil majors and the remaining 30% by other industry operators. Interestingly, 60% of the announced projects are being set up at LNG facilities. As per Rystad Energy analysis, the CCUS market in the region is estimated to grow to more than 600 million USD of expenditure in 2025, based on the projects announced to date.

In this talk, we shall take a deep dive into the region's driving factors for CCUS deployment including the regional storage potential, the policy-investment interface supporting the decarbonization technology, project landscape with an overview of the supply-demand portfolio of the region, and finally a comparison of where Southeast Asia lies in the global CCUS race.