

Preface

At the 4th East Asia Energy Forum (EAEF4) held on 13 September 2021, ‘participant VIPs, experts, and audiences discussed ‘A Low-Carbon Energy Transition in the ASEAN Region’. In the forum’s panel session 2, experts discussed how available technologies, including carbon capture, utilisation, and storage (CCUS), and hydrogen and fuel ammonia, will contribute to reducing CO₂ emissions around 2040–2050. The CCUS was again recognised as an important technology in achieving energy transition in the region. The Asia CCUS Network (ACN), established officially in June 2021, started its activities in 2021–2022, which included knowledge sharing, research study, and capacity-building training. This report covers the following activities: (i) capacity building training to provide basic lectures on capturing, transporting, and carbon recycling and storing of carbon dioxide (CO₂); (ii) research study on the analysis of carbon capture and storage (CCS) cost applying a model case as well as a legal framework; (iii) workshop as a knowledge-sharing conference to introduce major results of the research study.

CCUS comprises carbon capture, carbon utilisation, carbon transport, carbon storage, and capacity-building training provided audiences a clear understanding of each CCUS technical element. The cost analysis of CCS applying a model case suggests overall CCS cost (about US\$60/t-CO₂), which is in the range of published research papers, and capturing CO₂ marks the highest cost compared to transport and storage. This result is similar to the Tomokomai CCS project operated by Japan CCS Co., Ltd.

I hope this report will provide ACN members, especially ASEAN policymakers, a correct understanding of CCUS technology and contribute to lowering CCUS deployment cost in the ASEAN and East Asia region in the future.

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