

# ASIA CLEAN ENERGY FORUM 2018

HARNESSING INNOVATION TO POWER THE FUTURE

Manila, Philippines • 4-8 June 2018



Department for  
Business, Energy  
& Industrial Strategy

## Connecting Asian and Global CCUS Expertise Deep Dive Workshop on Carbon Capture Utilization and Storage

08 June 2018 (Friday), 9:00 a.m. - 5:30 p.m.

Asia Clean Energy Forum (ACEF), a premium event in Asia which is being held in Manila since 2006, has been bringing together a diverse mix of project developers, financial institutions and investors, non-profits, entrepreneurs, government officials, donors and program managers, and civil society and academia, to exchange experiences and engage in spirited discussions centered around how we can accelerate progress to build a clean energy future for Asia. This past June, ACEF brought together over 1,400 people from 71 countries across Asia and other parts of the world to share their experiences in addressing a wide range of issues facing the clean energy sector.

This year's event will be held from 04 June 2018 to 08 June 2018. The event has four main tracks

- Innovation in Energy Efficiency
- Innovation in Renewable Energy
- Increasing Energy Access and
- Navigating the future

Carbon Capture Utilization and Storage (CCUS) is expected to play an important role in meeting global climate goals. While much of the development has been in OECD member countries, ADB's DMCs are taking an increased interest, but remain concerned with the technical and financial viability. In this context, the Utilization part of CCUS becomes more important, especially as a tool for countries to pilot or demonstrate the technology in a cost-effective manner, showing a pathway that supports both economic development and meeting of NDCs. The event will have the following main objectives:

- To understand recent developments in CCUS from practitioners
- To open a dialogue amongst stakeholders of Asia to promote CCUS

The Deep Dive Workshop on CCUS will have participants and speakers from some of the most important stakeholders in the field of CCUS such as People's Republic of China, Australia, The Republic of Korea, India, Indonesia, Bangladesh, Norway, Canada and Japan. These experts will be discussing

CCUS policies, finance as well as technologies. A rich mix of experts from the government, academia and industry will provide an opportunity to network with experienced stakeholders. The event will help in understanding CCUS policy framework in Asia, identifying near term opportunities of implementing CCUS projects and familiarizing with international research. The event is co-organized by ADB and CCOP.

Please visit <http://www.asiacleanenergyforum.org/> for further details on Asia Clean Energy Forum and registration to the event

**About ADB:** ADB, based in Manila, is dedicated to reducing poverty in Asia and the Pacific through inclusive economic growth, environmentally sustainable growth, and regional integration. Established in 1966, it is owned by 67 members—48 from the region.

**About CCOP:** The CCOP is an intergovernmental organization whose mission is to facilitate and coordinate the implementation of applied geoscience programmes in East and Southeast Asia in order to contribute to economic development and the improvement of the quality of life in the region. To this end, CCOP promotes capacity building, technology transfer, exchange of information and institutional linkages for sustainable resource development, management of geo-information, geo-hazard mitigation and protection of the environment.

## Agenda

Time	Opening Session	Speaker
8.00 – 8.30	Registration	
8.30 – 8.40	Welcome Remark	ADB
8.40 – 9.00	UK's Role in CCUS Development and Next Steps	Dr. Peter Warren Senior Climate Investment Lead, BEIS, Government of UK (TBC)
9.00 – 9.20	CCUS Promotion in USA and way forward	Ms. Ariadne Benaissa, Deputy Director for Asian Affairs, Department of Energy, USA
	<p>Session #1 Asia's Drivers and Progress on CCUS</p> <p>This session will answer the “what” and the “why” of CCUS in Asia. It will clearly articulate specific aspects that must be addressed and/or considered for CCUS to progress in Asia DMCs.</p>	Shannon Cowlin – Energy Specialist, ADB
9.25 – 9.40	South Korea's Experience in Carbon Capture Utilization and Storage Technologies.	Dr. Ji Whan Ahn Director, Korea Institute of Geoscience and Mineral Resources, Korea
9.40-10.00	Current status and future path of Developments for CCUS in Indonesia	Dr. Usman Pasarai, Head of Business Development Unit, Development Center of Oil and Gas Technology "LEMIGAS", Agency for Research and Development of Energy and Mineral Resources, Indonesia
10.00 -10.15	CCUS opportunities in India	NETRA, NTPC Limited, India (TBC),
10.15– 10.30	Tea Break	

10:30– 10.45	CCUS in context of Bangladesh	Mr. Abul Mansur Md Faizullah, Chairman of Bangladesh Oil, Gas and Mineral Corporation, Bangladesh
10.45 -11.30	Round-table discussion on Asian experiences including successes and challenges. Emphasis will be placed on the Asian characteristics and way forward. Creating push and pull for CCUS, <ul style="list-style-type: none"> <li>- Siree Nasakul, Senior Petroleum Engineer Department of Mineral Fuels, Ministry of Energy, Thailand</li> <li>- Mrs. Kamani Jayasekera, Deputy General Manager (Electrical), Engineering Advisory Services</li> <li>- Mr. Atsushi Hatakeyama, Deputy General Manager of Technical Dept. 1, J X Nippon Oil &amp; Gas Exploration Corporation</li> </ul>	
	Session #2Connecting International Experiences Across Asia  The objective of this session is to highlight international experiences and the most relevant aspects that can be applied across Asia. The session will identify regional differences, similarities and discuss technology.	Dr. Pradeep Perera, – Principal Energy Specialist ADB
11.30– 11.45	Opportunity to Decarbonize Steel Sector through CCS	Mr. Tony Zhang Sr. Advisor, Global CCS Institute, Australia
11.45-12.00	Sharing Experience at Petronova CCUS project	Mr. Noriaki Shimokata, J X Nippon Oil Exploration, Japan
12.00–12.15	Economic Cost Analysis for CCUS Demonstration Project in PRC	Dr. Gao Lin, Professor, China Academy of Sciences, People’s Republic of China
12.15– 13.15	Lunch and Net working	
13.15 – 14.00	Roundtable discussion: How do we jump start CCUS in Asia? What can we do in next 6 months on institute to Institute knowledge exchange? Asia to ask what they need and advanced countries to reply what they can give) Discussion on low hanging fruits, the first tasks and policy decisions <ul style="list-style-type: none"> <li>- Dr Adichat Srinkum Director, CCOP Technical Secretariat, Rahamat Ullah Mohd. Dastagir, ndc</li> </ul>	

	<ul style="list-style-type: none"> <li>- Additional Secretary, Planning and Renewable Energy, Power Division, Ministry of Power, Energy and Mineral Resources, Bangladesh</li> <li>- ONGC Limited, India (TBC)</li> </ul>	
	<p><b>Session #3: Pathways for CCUS in Asia.</b></p> <p>This session will focus on opportunities for collaboration and next steps in the near and medium term. Focus will be placed on least cost or the most financial viable opportunities.</p>	TBC
14.00– 14.15	CCUS policy Framework in Canada and way forward	Ms. C. Beth Hardy, VP, Strategy & Stakeholder Relations, ICCSKC, Canada
14.15–14.30	Development of CCUS technology and its commercial implementation	Mr. Aniruddha Sharma Carbon Clean Solutions, UK
14.30– 14.45	Japan's experience in CCUS development and vision of low carbon economy	Mr. Makoto Nunokawa, Project Coordinator, Environment Department, NEDO Japan
14.45– 15.00	Tea break	
15.00– 15.20	European perspective on CCUS and Future course through ACT	Ms. Ragnhild Rønneberg ACT Coordinator, The Research Council of Norway
15.20– 15.40	Mineralization of CO <sub>2</sub> and CCUS as a decarbonization tool for decarbonization Cement Manufacturing	Mr. Mike Monea, President and CEO, ICCSKC, Canada
15.40 - 16.25	<p>Round Table Discussion: How do we jump start CCUS in Asia? What can we do in next 6 months on institute to Institute knowledge exchange? Asia to ask what they need and advanced countries to reply what they can give) Discussion on low hanging fruits, the first tasks and policy decisions</p> <ul style="list-style-type: none"> <li>- Tim Dixon, Technical Programme Manager, IEA – GHG</li> <li>- IEA (TBC)</li> <li>- Ms. Jzmin Mota Nieto, Director of Clean Technologies, Ministry of Energy, Mexico</li> </ul>	
16.25 -16.40	Conclusion and Next steps	Mr. David Elzinga, Sr. Energy Specialist, ADB