

所属/ Belong to	登壇者名/ Presenter	発表内容/ Topics of the presentations ※These are not the titles of the presentations.	発表概要文/ Presentation abstract
Global CCS Institute (GCCSI)	Ian Havercroft	Overview of CCS and CO2 transboundary transportation projects around the world	<p>Carbon capture and storage continues to scale up with significant global progress over the past 12 months. The growth in supportive policies, increased sources of finance and strengthened climate policy and regulation, has led to a substantial increase in the number of CCS facilities in the development pipeline.</p> <p>In line with this growth, and the wider commercial opportunities afforded by CCS networks, governments and industry are increasingly considering the practical and commercial opportunities of CCS activities beyond national boundaries. In several jurisdictions this has ultimately led to the development of cross-border operations involving transport by ship as well as pipelines.</p>
ASEAN Centre for Energy (ACE)	Beni Suryadi	Status of CCS and CO2 Cross-Border Transport in the ASEAN Energy Transition	<p>The presentation "Status of CCS and CO2 Cross-Border Transport in the ASEAN Energy Transition" will showcase initial findings from a study conducted by ACE, MRI, and JOGMEC. This study, titled 'Opportunities and Challenges on Cross-Border CO2 Transportation in ASEAN for Advancing CCS Towards a Net Zero Future,' evaluates the readiness of CCS/CCUS regulations in Indonesia, Malaysia, Thailand, and Vietnam. It also examines the challenges and potential in establishing cross-border CO2 transportation in ASEAN. Key focus areas include regulatory</p>

			landscapes, and strategic partnerships necessary for advancing carbon capture and storage in the region's journey towards a net-zero future.
<b>Ashurst</b>	Guy Dwyer	Relationship between transboundary CO2 transport and regulations such as the London Protocol	One of the most topical areas of CCS law and regulation at present is the transboundary movement of CO2 from one country to another for the purposes of geological storage. There are several international environmental laws that can have varying degrees of relevance to such activities. Those laws may facilitate or impede the carrying out of transboundary CCS projects. The purpose of this presentation is to explore those issues, with a focus on the London Convention / Protocol, UN Convention on the Law of the Sea, the Basel Convention and some shipping treaties.
<b>Nishimura &amp; Asahi (Gaikokuho Kyodo Jigyo)</b>	Hiroyasu Konno	IPCC Guidelines	According to Decision 24 at COP 19, as a general rule, the Annex I Parties of the UNFCCC shall use the methodologies provided in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (the "IPCC GHG Inventories Guidelines") in preparing annual greenhouse gas inventories. In this connection, the amount of GHG emissions and removals in inventories is important basic data for assessing the progress and achievement of the emission reduction targets under the Paris Agreement. This presentation will briefly explain how CCS and CO2 cross-border transport and storage are stipulated in the IPCC GHG Inventories Guidelines.
<b>IOM Law advokatfirma</b>	Ingvild Ombudstvedt	EU legal framework for transboundary CO2 transport	The European Economic Area is an internal market "without borders" with a comprehensive set of regulations and directives to ensure free movement

			<p>of goods, persons, services and capital. For CCS, there are several instruments in place to secure carbon removals and reductions, and to support value chains crossing borders. This presentation will introduce some of these instruments, and further explain the relation between the London Protocol and the EU CCS framework.</p>
<p><b>Petroliam Nasional Berhad (PETRONAS)</b></p>	<p>Nor A'in Md Salleh</p>	<p>Project Introduction 1: Status of Studies in Asia</p>	<p>As PETRONAS is embarking into its own effort for decarbonization via CCS, an opportunity to provide the solution as an option for hard to abate industries in the region become apparent given the huge potential of geological storage site in Malaysia. Hence, to enable the reach of this solution to the region, PETRONAS has identified the criticality for the cross border transport specifically the Liquefied CO<sub>2</sub> (LCO<sub>2</sub>)Vessel. Parallel to works in developing the 3 CCS Hub in Malaysia, PETRONAS has also taken the steps to pursue the development of LC0<sub>2</sub> Vessel. It is not only the construct of the ship that has been undertaken but as we progress, we also have identified the related ecosystem surrounding the operations of cross border transportation that need to be developed. These include the requirements to satisfy London Protocol/IMO, liability &amp; risk management, carbon movement and accounting and cost management. PETRONAS is positive that these uncertainty in progressing with the ecosystem construct can be addressed through the approach of collaboration, transparent and open communication.</p>
<p><b>Mitsubishi Corporation</b></p>	<p>Akihiko Takao</p>	<p>Project Introduction 2: Status of Studies in Asia</p>	<p>Mitsubishi is proceeding with a feasibility study for a cross-border CO<sub>2</sub> transportation concept in the Ise-Bay area, supported by Japanese</p>

			<p>government funding as part of 'Advanced CCS'. Aggregated CO2 from multiple industrial emitters in the Ise-Bay area is expected to be exported by a liquefied CO2 transportation vessel to potential CO2 storage sites outside Japan.</p> <p>Engineering studies on CO2 capture, aggregation, liquefaction, export, transportation, and storage are ongoing. A variety of challenges that need to be solved for the realization of the CCS value chain business were identified through the feasibility study.</p>
<b>Northern Lights JV</b>	Baris Dolek	Project Introduction 3: Status of Studies in Scandinavia	<p>Northern Lights is a Joint Venture of Shell, Equinor and Total Energies. Northern Lights is developing the world's first open-source CO2 transport and storage infrastructure.</p> <p>2023 has been a significant year for Northern Lights. Northern Lights signed two binding commercial CO2 transport and storage agreements, increasing its customer base to four industrial customers with a total of 2 MTPA CO2 to be stored.</p> <p>Through its four CO2 ships on order, Northern Lights is building the world's largest dedicated CO2 shipping fleet.</p> <p>Northern Lights' facilities are 91% completed; on schedule and on budget to be ready for operations in 2024.</p>
<b>Mitsui O.S.K. Lines, Ltd.</b>	Masatoshi Numano	To be uploaded later Initiatives by Transportation Operators	<p>-agenda-</p> <ol style="list-style-type: none"> <li>1.Introduction to MOL</li> <li>2.MOL CCUS Business Model</li> <li>3.How to transport CO2 by Ship</li> </ol>

			<p>4.MOL CCUS Technical Initiatives</p> <p>5.MOL CCUS Projects</p>
<p><b>Nippon Steel Corporation</b></p>	<p>Taisuke Horimi</p>	<p>Initiatives by Emitting Businesses Operators</p>	<p>Nippon Steel aims to reduce CO2 emissions by 30% in 2030 and to achieve carbon neutrality by 2050. The company is developing technologies to reduce CO2 emissions in the steelmaking process, and the introduction of CCUS is essential for achieving carbon neutrality. The implementation of the CO2 capture and liquefaction process is being studied for source facilities that emit high concentrations and large amounts of CO2 at steel works. Challenges for the introduction of CO2 capture and liquefaction in steel works and issues for the implementation of transboundary CCS are described.</p>