

## CCOP – Norway Program on Enhancing Public Petroleum Management for the CCOP Member Countries (EPPM)

**EPPM Program Seminar 6 (S6):** Seminar/Workshop - CCS Opportunities in the CCOP Region, 12-14 September 2012, Indonesia

### A. Objectives:

- a. To enhance the knowledge of the CCOP Member Countries with the current state-of-the-art in Carbon Capture Storage.
- b. To discuss the opportunities of CCS in the region

### B. Participants and Resource Persons

- a. Participants - Management representatives from Upstream Oil and Gas regulating agencies, research agencies, ASCOPE and other national oil companies, and academic institutions in the CCOP Member Countries.
- b. Resource persons from PETRAD's network, IEAGHG, CO2CRC, GCCSI and CCOP Member Countries

**C. Venue & Date: Indonesia, 12-14 September 2012**

### Draft Program

#	Date	Item	Responsible Organization/Resource Person
	<b>12 Sep</b>	DAY 1	
1	0830	Registration	CCOP TS
2	0900	<b>Opening Ceremony</b> <ul style="list-style-type: none"> <li>• Welcoming Remarks               <ul style="list-style-type: none"> <li>○ CCOP Technical Secretariat</li> <li>○ Permanent Representative of Indonesia to CCOP</li> <li>○ Representative from PERTAMINA (ASCOPE)</li> </ul> </li> <li>• <b>Opening Remarks</b> <ul style="list-style-type: none"> <li>○ Norwegian Embassy- Jakarta</li> </ul> </li> </ul>	<b>Prof. Dr. He Qingcheng</b> Director, CCOP TS  <b>Dr. R. Sukhyar</b> Chairman, CCOP Steering Committee & Head of Geological Agency, Indonesia  <b>Dr. Adriansyah</b> SVP Upstream Business Development PERTAMINA  <b>HE Ambassador Stig Traavik</b> Ambassador of Norway to Indonesia Royal Norwegian Embassy- Jakarta

		Exchange of tokens	
	1000	Group Photo- Coffee/Tea - Networking	All
4	1030	<b>Introduction and background of the workshop</b> <ul style="list-style-type: none"> <li>EPPM Program update</li> </ul>	<b>Mr. Simplicio P. Caluyong</b> EPPM Coordinator, CCOP TS
5	1100	<b>Overview of the CCS Landscape in Australia</b>	<b>Dr. Matthias Raab</b> Program Manager Geological Carbon Storage CO2CRC, Cooperative Research Centre for GHG Technologies University of Melbourne Australia
6	1130	<b>Update on CCS Storage Projects</b>	<b>Dr. Holger Bietz</b> General Manager Projects, Financial and Commercial Global CCS Institute Australia
	1200	<b>Lunch - Networking</b>	
7	1330	<b>A case study on CCS Projects: Australia's CO2CRC- Otway Project</b>	<b>Dr. Matthias Raab</b> CO2CRC, Australia
8	1400	<b>Country presentations: CCS Opportunities (~15 min)</b> <ul style="list-style-type: none"> <li>CCS Technical works in your country <ul style="list-style-type: none"> <li>Research projects</li> <li>Techno-economic projects</li> <li>Pilot projects</li> </ul> </li> <li>CCS Policy development <ul style="list-style-type: none"> <li>Regulatory framework</li> </ul> </li> </ul> Government International collaboration	CCOP Member Countries
	1500	Coffee/Tea - Networking	
	1530	Continue with the Country presentations	
9	1600	<b>Workshop/group discussion 1: CCS challenges and opportunities</b> <ul style="list-style-type: none"> <li>Status of International experience <ul style="list-style-type: none"> <li>There are few full scale projects- what could be the challenges?</li> </ul> </li> <li>Opportunities for the use of CO2</li> </ul> - <b>Brief introduction/background</b>	All Participants  <b>PROF. BJØRN KVAMME</b> Professor Department of Physics and Technology University of Bergen, Norway
10	1700	Summary, End of Day 1	Chairperson, CCOP TS
	1830	Welcome Dinner (smart casual)	Hosted by Pertamina, Indonesia at Patra Bali

	<b>13 Sep</b>	DAY 2	
11	0830	Recap of Day 1- Order of the day	Chairperson
12	0845	<b>CCS Capture</b> <ul style="list-style-type: none"> <li>• Overview of CO2 capture development</li> <li>• CO2 capture from power plants (coal)</li> <li>• More details discussions on Post, Oxyfuel and Pre-Combustion capture</li> <li>• CCS in CDM</li> <li>• Update CO2 Capture in Far East Asia</li> <li>• Current status and The way forward</li> </ul>	<b>Dr. Stanley Santos</b> Project Manager IEAGHG, UK
13	0930	<b>CO2 Technology Center - Mongstad, Norway</b>	<b>Mr. Tor Fjæran</b> President Director Statoil Indonesia
	1000	Coffee/Tea – Networking	
14	1030	<b>CCS Capture Technologies &amp; Transportation Options</b>	<b>Dr. Stanley Santos</b> IEAGHG, UK
15	1115	<b>First Pilot Study of CO2 Sequestration in Indonesia</b>	<b>Prof, Wawan Gunawan A. Kadir</b> ITB, Indonesia
	1200	<b>Lunch - Networking</b>	
16	1330	<b>Workshop 2: CCS Capture</b>	All participants
	1500	Coffee/Tea – Networking	
	1530	Continue with Workshop 2	All participants
17	1700	Summary & End of Day 2	Chairperson
	<b>14 Sep</b>	DAY 3	
18	0830	Recap & Order of the day	Chairperson
19	0840	<b>CO2 Storage &amp; Monitoring</b> <ul style="list-style-type: none"> <li>• Assessment of injection induced earthquake and strong motion effect on CO2 storage reservoir</li> </ul>	<b>Dr. Shinsuke Nakao</b> Leader of CO2 Geological Storage Research Group Geological survey of Japan AIST, JAPAN
	0900	<b>Update on CO2 Storage &amp; Monitoring Research in Korea</b>	<b>Dr. Jeong Chan Kim</b> Leader of CO2 Geological Storage Research Team Korea Institute of Geoscience and Mineral Resources KIGAM, Korea
20	0930	<b>Mapping of Geological CO2 Storage sites</b>	<b>Mr. Tor Fjæran</b> President Director Statoil Indonesia
	1000	Coffee/Tea – Networking	
21	1030	<b>Storing CO2 in Gas Hydrates</b>	<b>Prof. Bjørn Kvamme</b> University of Bergen, Norway
22	1115	<b>CCS Project in CCOP – Development of a CCOP CO2 Storage Atlas</b>	<b>Mr. Simplicio Caluyong</b> CCOP TS
	1200	Lunch - Networking	
23	1330	<b>Workshop 3: CO2 Storage</b> <ul style="list-style-type: none"> <li>• Characterization techniques</li> </ul>	All Participants

		<ul style="list-style-type: none"> <li>• Challenges for long term storage <ul style="list-style-type: none"> <li>○ Impact of various types of sealing formations</li> </ul> </li> <li>- General comments</li> </ul>	<b>Prof. Bjørn Kvamme</b> University of Bergen, Norway
	1500	Coffee/tea	
24	1530	Workshop summary Awarding of certificates and tokens  Closing Ceremony/remarks	CCOP TS  <b>Dr. Øystein Berg</b> Managing Director PETRAD, Norway
	1630	End of Workshop	
	1830	Farewell Dinner (smart casual)	CCOP TS (Gimbaran Beach, Denpasar)