

### **Update from IEAGHG**

#### **Tim Dixon**

General Manager IEAGHG

CSLF Technical Group Meeting, Bergen, hosted by Research Council of Norway

27 June 2022





#### Who are we?

Our internationally recognised name is the IEA Greenhouse Gas R&D Programme (IEAGHG). We are a Technology Collaboration Programme (TCP) and are a part of the International Energy Agency's (IEA's) Energy Technology Network.

#### <u>Disclaimer</u>

The IEA Greenhouse Gas R&D Programme (IEAGHG) is organised under the auspices of the International Energy Agency (IEA) but is functionally and legally autonomous. Views, findings and publications of the IEA Greenhouse Gas R&D Programme do not necessarily represent the views or policies of the IEA Secretariat or its individual member countries.

# IEA Greenhouse Gas R&D Programme (IEAGHG)



- A collaborative international research programme founded in 1991
- Aim: To provide information on the role that technology can play in reducing greenhouse gas emissions from use of fossil fuels and biomass in power and industrial systems.
- Focus is on Carbon Dioxide Capture and Storage (CCS)
- Producing information that is:
  - ✓ Objective, trustworthy, independent
  - ✓ Policy relevant but NOT policy prescriptive
  - ✓ Reviewed by external Expert Reviewers

































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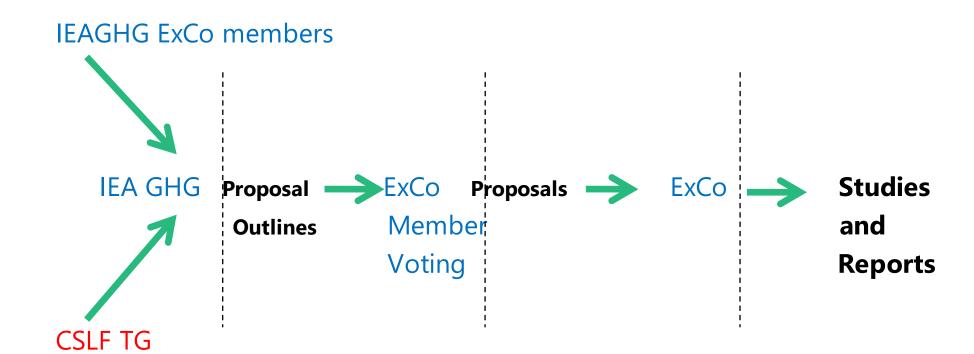
## Arrangement between CSLF Technical Group and IEAGHG



- How CSLF TG/PIRT and IEAGHG will interact for mutual benefit through increased co-operation
- Agreed by IEAGHG ExCo Oct 2007 and CSLF Technical Group Jan 2008



### **IEAGHG – Study generation**



### **CSLF** proposed/related studies



#### Recent reports:

- Hydrogen Production with CCS workshop. 6<sup>th</sup> November 2020, Paris. IEAGHG 2020/TR01
- 4<sup>th</sup> International Workshop on Offshore CCS. IEAGHG Report 2020/TR02

Additional new study ideas invited from CSLF TG
Outline required by 29 June 2022

### **IEAGHG Primary Activities**



- Funding research into development and deployment of CCUS technologies
- Technical Reports > 356 reports published on all aspects of CCUS
- International Expert Networks
   Risk Management; Monitoring; Modelling;
   Environmental Research; High Temperature Solid
   Looping; Costs; Social Research
- Conferences
  - GHGT conferences (the largest global conference on CCS)
     GHGT16 23-27 Oct 2022, Lyon France.
  - PCCC conferences PCCC6, UKCCSRC, virtual, 19-21 Oct 2021
  - Negative CO<sub>2</sub> Emissions conference 14-17 June 2022 Gothenburg
  - International CCS Summer Schools









#### 23 - 27 OCTOBER 2022













- The leading conference for CCUS for more than 30 years returns for an 'in person' attendance. Hosted by Club CO2 in Lyon, France.
- Over 700 presentations in 71 sessions, 7 parallel streams, panel sessions, keynotes, plus social events
- Over 800 abstracts received.
- Refer to <a href="https://www.ghgt.info">www.ghgt.info</a>

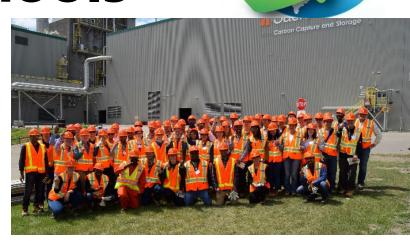


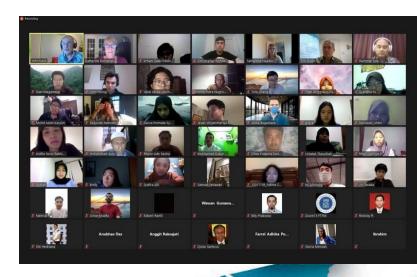




### **International CCS Summer Schools**

- 636 alumni, 58 countries
- 2020 in Bandung, Indonesia, hosted by ITB - Postponed to Nov 2022
- CCS Virtual Course with ITB
- for ASEAN students Nov 2020
- 82 students
- CCS Virtual Course with ITB 2021
- 26 Jul to 6 Aug 2021





### **Recent Reports**

Title	Contractor	Report number	Proposed by	Publication date
Criteria for Depleted Reservoirs to be Developed for CO2 Storage	BEG at U.Texas	2022-01	Total	17/01/22
Current State of Knowledge Regarding the Risk of Induced Seismicity at CO2 Storage Projects	BEG at U.Texas	2022-02	IEAGHG	01/02/22
Prime Solvent candidates for next generation of PCC plants	Khalifa Uni.	2022-03		28/02/22
From CO2 to Building Materials - Improving Process Efficiency	Imperial College	2022-04	UK	02/03/22
Feasibility study on achieving deep decarbonization in worldwide fertilizer production	Wood	2022-05	UK	03/03/22





#### 2020 / 2021

- CSLF CCS Hubs virtual Workshop hosted by by Gassnova and the Research Council of Norway with IEAGHG input – 15<sup>th</sup> October 2020. Reported in IP 2020-IP21
- Risk Management Network virtual Discussion Panel webinar was held on 2<sup>nd</sup> December 2020. Reported in Technical Review 2021-TR01.
- The Monitoring Network held a second virtual webinar on 26<sup>th</sup> January 2021 entitled 'Monitoring Expertise Showcase for Post Closure Monitoring' report in progress.

### Webinar series (recent)

• Established June 2015, 38 webinars to date

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Webinar title	Date	Presenter	No. attendees	No. YouTube views to date
The Road to CCS Project Permitting – Operators' Experiences With Risk Management During the Permitting Process	18/01/2022	IEAGHG RMN Network	138	n/a, not public
IEAGHG/IETS iCCUS Workshop: CCUS Technologies in Industrial Systems	01/03/2022	Various		134
Criteria for Depleted Reservoirs to be Developed for CO2 Storage	04/03/2022	IEAGHG & BEG at U.Texas		215
Study on Global Assessment of Direct Air Capture Cost	23/03/2022	IEAGHG, Element Energy & Imperial College		203
Current State of Knowledge Regarding the Risk of Induced Seismicity at CO2 Storage Projects	13/04/2022	IEAGHG & BEG at U.Texas		167
Feasibility Study on Achieving Deep Decarbonization in Worldwide Fertilizer Production	24/05/2022	IEAGHG, Wood & Ergo		54

### **IEAGHG Information Papers (recent)**



Information Paper Title	IP No.	Issue Date	Author
(CONFIDENTIAL) Summarising the DETECT Project	2021-IP27	03/12/2021	JWC
Hydrogen for net zero	2021-IP28	13/12/2021	AA
(CONFIDENTIAL) 83rd WPFE	2021-IP29	16/12/2021	TD
OGCI Gulf Countries CCUS White Paper External Stakeholder Workshop	2022-IP01	31/01/2022	JWC
IPCC Climate Change 2022 Impacts, Adaptation and Vulnerability	2022-IP02	10/03/2022	JK
IPCC approves the Summary for Policymakers for Working Group III Mitigation of Climate Change	2022-IP03	05/04/2022	AL, Chevron
(CONFIDENTIAL) IEA Renewable Energy Working Party Meeting 5th and 6th April 2022	2022-IP04	13/04/2022	JWC
IPCC WGIII Report	2022-IP05	04/05/2022	JK

### **IEAGHG Information Papers (recent)**



Information Paper Title	IP No.	Issue Date	Author
CSLF 2021 Technology Road Map	2021-IP16	21/09/2021	JC
Nature article on CDR	2021-IP17	11/10/2021	JK
CONFIDENTIAL 82nd meeting of the IEA Working Party on Fossil Energy, 30 September 2021	2021-IP18	12/10/2021	TD
UK Net Zero Strategy: Build Back Greener: Synopsis on hydrogen and CCUS	2021-IP19	29/10/2021	AA
Net Zero Strategy and GGRs	2021-IP20	29/10/2021	JK
IEA Global Hydrogen Review 2021	2021-IP21	02/11/2021	AA
IEA: An Energy Sector Roadmap to Carbon Neutrality in China	2021-IP22	05/11/2021	КВ
The Global Methane Pledge	2021-IP23	05/11/2021	SN
Net zero electricity in G7	2021-IP24	05/11/2021	КВ
Next Generation Capture Technologies	2021-IP25	22/11/2021	AA
NETL Well Integrity Workshop: Identifying Well Integrity Research Needs for Subsurface Energy Infrastructure	2021-IP26	29/11/2021	JC





#### **United Nations**

Framework Convention on Climate Change

CCS Side Events at COP20, COP21, COP22, COP23, COP24, COP25, COP26



CSLF Technical Group **IEAGHG inputs** 



CCUS Initiative **IEAGHG inputs** 

#### **Knowledge Transfer**





Expert Reviewers,
Accredited Observer
AR6 reviews
AR6 – 98 comments
provided





**London Convention:** 

Regular updates on CCS:

ROAD permit assessment, Offshore workshops

CO<sub>2</sub> Export Resolution 2019



