



# Update from IEAGHG

**Tim Dixon**

General Manager IEAGHG

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

28 April 2021



## 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.

## Disclaimer

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



ieaghg



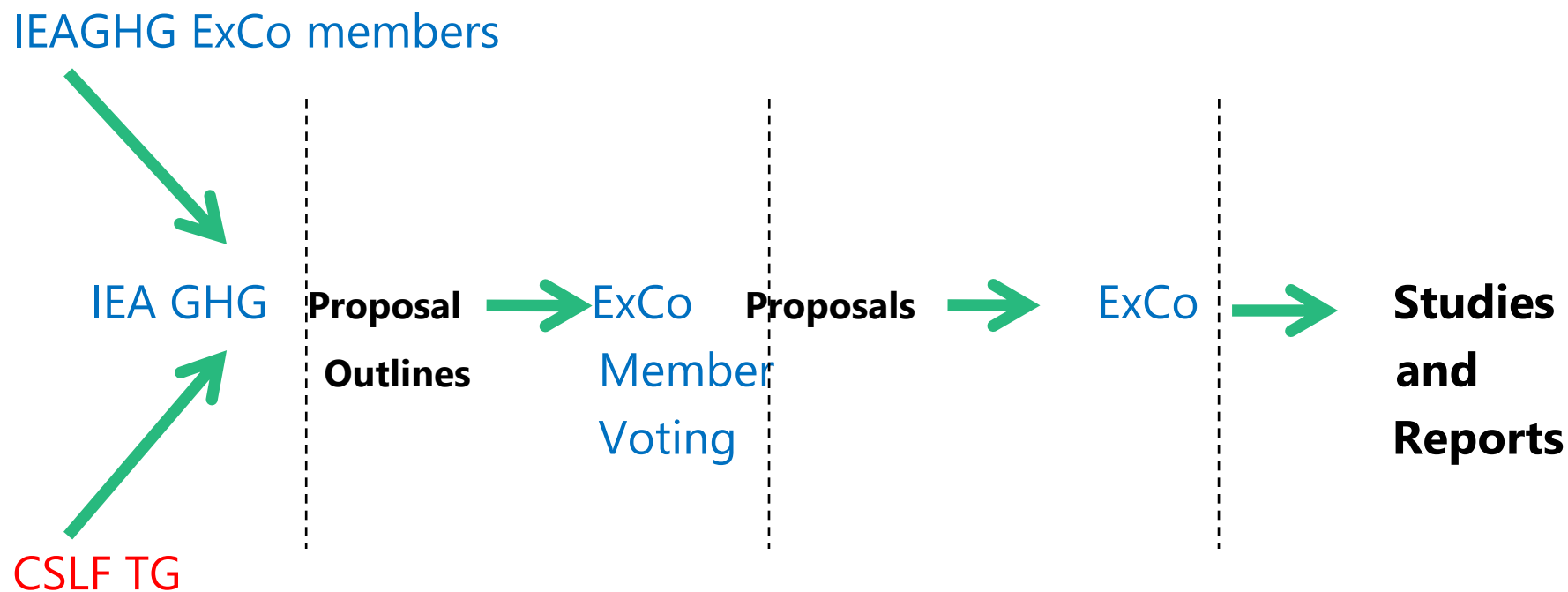
# Arrangement between CSLF Technical Group and IEAGHG



- 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 June 2021**

# IEAGHG



- Flagship activities:
- **Technical Studies** >356 reports published on all aspects of CCS
- **International Research Networks**
  - Risk Management - Meeting postponed from Jun 2020 to 2022
    - Webinar in Fall 2020
  - Monitoring - Webinars in Aug 2020, Jan 2021
  - Modelling
  - Environmental Research
  - High Temperature Solid Looping
  - Costs
- **GHGT conferences**
- GHGT-15, Virtual from UAE, Mar 2021 – papers published on SSRN
- **PCCC conferences**
- PCCC6, UKCCSRC, virtual, 19-21 Oct 2021
- **Negative CO<sub>2</sub> Emissions conference** – postponed





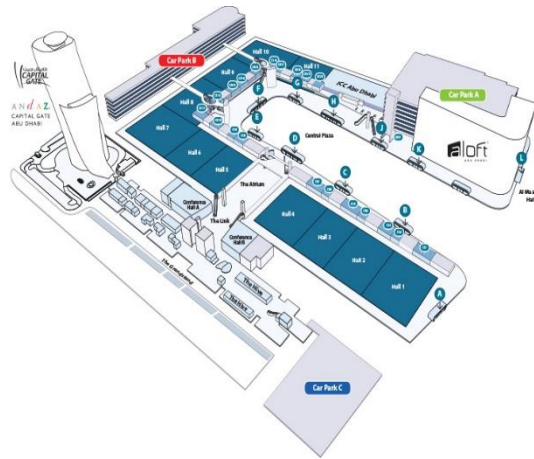


# ghgt-15

**Virtual**  
**15<sup>th</sup> to 21<sup>st</sup> March 2021**



**Hosted by Khalifa University,**  
**Abu Dhabi, UAE**

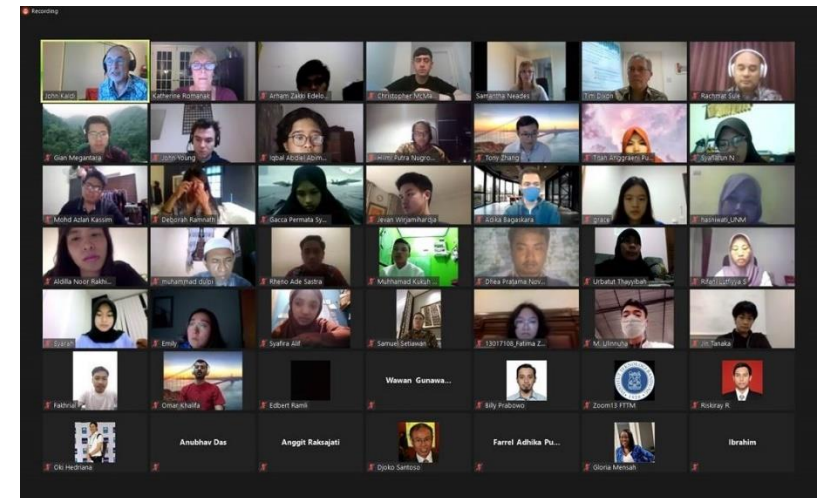


- Over 500 presentations
- 956 delegates from 41 countries
- Papers on SSRN by end April 2021 and some selected for IJGGC
- GHGT-15 Summary report

# International CCS Summer Schools



- 636 alumni, 58 countries
- 2020 in Bandung, Indonesia, hosted by ITB - **Postponed to 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
Beyond LCOE: Value of technologies in different generation and grid scenarios	Imperial College	2020-11	UK	29/09/2020
CCS and the Sustainable Development Goals	TNO	2020-14	Shell & IEAGHG	15/12/2020
IEAGHG High Temperature Solid Looping Cycles Network – Combined meeting report		2020-13		16/10/2020
Techno-economic Potential of Biorefineries with CCS	VTT	2021-01	IEAGHG	26/03/2021
IEAGHG Risk Management Network Webinar December 2020		2021-TR01		25/01/2021
Exporting CO <sub>2</sub> for Offshore Storage – The London Protocol’s Export Amendment and Associated Guidelines and Guidance		2021-TR02		April 2021

# Expert Networks and other events



## 2020 / 2021

- CSLF CCS Hubs virtual Workshop – hosted 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

- Established June 2015
- 29 webinars to date

Webinar title	Date	Presenter	No. attendees	No. YouTube views to date
Beyond LCOE: Value of technologies in different generation and grid scenarios	15/12/2020	Keith Burnard, IEAGHG Professor Niall MacDowell, Imperial College London	73	123
High-level analysis of the intergration of WtE with CCS/CCU	20/01/2021	Mónica García, IEAGHG Vincenzo Tota, Process Manager, Wood, Italy Federico Viganò, Assistant Professor, LEAP	85	270
CO <sub>2</sub> DataShare: Sleipner Benchmark study	25/02/2021	James Craig, IEAGHG Sarah Gasda, NORCE Odd Andersen, SINTEF Tore Ingvald Bjørnarå, NGI Tor Harald Sandve, NORCE Adeel Zahid, Equinor. Philip Ringrose, Equinor.	78	797

# IEAGHG Webinars



- **Value of Emerging and Enabling Technologies in Reducing Costs, Risks & Timescales for CCS**
- Samantha Neades, Katherine Orchard. 8 September 2020
- **IEAGHG Monitoring Network: 'Regulation, Industry and Research - Translating Monitoring Research to Meet Commercial Needs'**
- Tim Dixon, Sue Hovorka, Sunil Varma, Scott Wehner, Katherine Romanak, Eva Halland, Jørg Aarnes. 12 August 2020
- **Reducing Water Usage in Coal and Gas Fired Power Plants with CCS**
- Monica Garcia, Regina Sander and Paul Feron. 25th June 2020
- **Launching CO<sub>2</sub> DataShare – a digital portal for making CO<sub>2</sub> storage data available**
- Grethe Tangen , Odd Andersen, Philip Ringrose, Anne-Kari Furre. 27th February 2020
- **COP-25 Summary Highlights**
- Arthur Lee and Tim Dixon. 14th January 2020

• <https://ieaghg.org/publications/webinars>

# IEAGHG Information Papers (recent)



Information Paper Title	IP No.	Issue Date	Author
IEA Press Webinar: Special Report on Carbon Capture Utilisation and Storage: CCUS in Clean Energy Transitions	2020-IP15	01/10/2020	KB
G20 Energy Ministerial Communique	2020-IP18	15/10/2020	SN
World Energy Outlook 2020	2020-IP19	03/11/2020	KB
Virtual Workshop on CO <sub>2</sub> Infrastructure and Industrial Clusters	2020-IP21	17/11/2020	JC
The Adopted Provisional Application of the London Protocol's CCS Export Amendment	2020-IP22	13/11/2020	TD
CCUS for Low Carbon Strategies in Industries Workshop	2020-IP23	10/12/2020	MG
Lessons from Longship	2020-IP24	16/12/2020	KB
WPFE Energy Water Workshop	2021-IP02	08/01/2021	MG
IEA Key Priorities and Special Projects for 2021	2021-IP03	20/01/2021	KB
ICEF Roadmap on Biomass Carbon Removal and Storage (BiCRS)	2021-IP04	25/02/2021	JK
UNFCCC Synthesis Report on Nationally Determined Contributions	2021-IP05	08/03/2021	TD and Juho Lipponen (CEM)



International Energy Agency



United Nations Framework Convention on Climate Change



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

Input to WPFE



IEAGHG  
Technical reports to CSLF  
Technical Group



ipcc

INTERGOVERNMENTAL PANEL ON climate change

Expert Reviewers, Accredited Observer AR6 – 98 comments provided



ISO Technical Committee on CCS, TC-265  
IEAGHG input



London Convention & Protocol: Regular updates on CCS: ROAD permit assessment, Offshore workshops CO<sub>2</sub> Export Resolution





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