



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



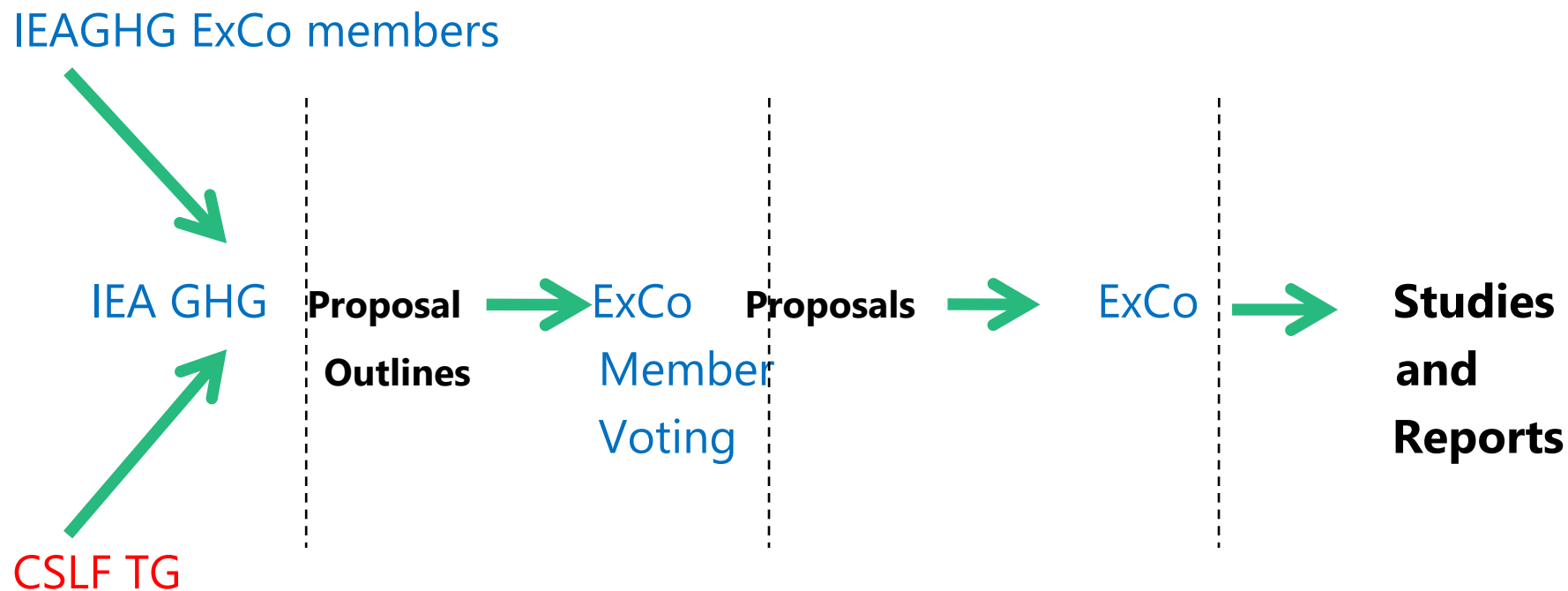
Arrangement between CSLF Technical Group and IEAGHG



- 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. 6th November 2020, Paris. IEAGHG 2020/TR01
- 4th 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 CO₂ Emissions conference** – postponed



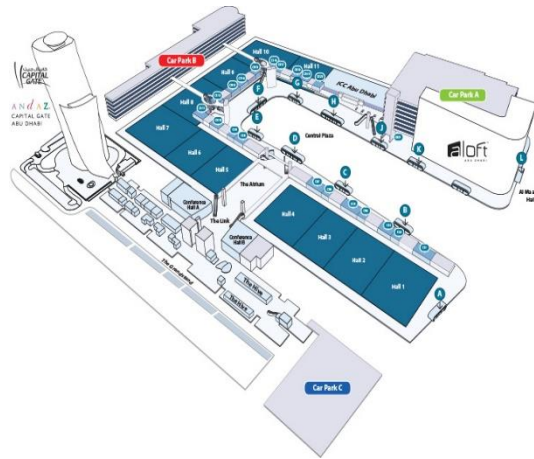


ghgt-15

Virtual
15th to 21st 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 ₂ 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 – 15th October 2020. Reported in IP 2020-IP21
- Risk Management Network virtual Discussion Panel webinar was held on 2nd December 2020. Reported in Technical Review 2021-TR01.
- The Monitoring Network held a second virtual webinar on 26th 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 ₂ 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 CO₂ DataShare – a digital portal for making CO₂ 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 ₂ 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



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 CO₂ Export Resolution



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