

Calgary TELUS Convention Centre  
Calgary, Alberta, Canada



October 20-24, 2024

# CALL FOR ABSTRACTS



HOSTED BY:





# WELCOMING THE WORLD TO CALGARY

Established in 1997, the GHGT conference series is the premier international forum focused on greenhouse gas reduction technologies, specifically ones leading to carbon capture, utilization, and storage (CCUS). GHGT-17 will educate, inspire, and lay the foundation for international partnerships designed to accelerate the development of CCUS technologies on a commercial scale.

Alberta is Canada's home of CCUS innovation, development, and deployment and is committed to supporting emissions reducing technology, development, and deployment across the power generation, oil and gas, agriculture, cement, chemicals, and other manufacturing industries.

At GHGT-17, Calgary will host industry leaders, government officials, and business partners from around the world, with a keen focus on technology, innovation, and greenhouse gas (GHG) mitigation. For anyone involved in the energy or cleantech space, Calgary will be the place to be in October 2024.

GHGT-17 will be co-hosted by Emissions Reductions Alberta (ERA). Created in 2009, ERA invests in the pilot, demonstration, and deployment of clean technology solutions that reduce GHGs. ERA helps industries deliver sustainable environmental outcomes, attract investment, and support a diversified, lower-carbon economy.

The conference will take place at the Calgary TELUS Convention Centre (CTCC), an inspiring gathering space where ideas are shared, meaningful connections are made, and partnerships are forged. Ideally positioned in Calgary's vibrant downtown core, the CTCC is a vibrant state-of-the-art venue, meeting place, and conference centre.

The focus of GHGT-17 will be to present, discuss, and explore research and emerging developments in greenhouse gas emission reduction. Keynote speeches, panel discussions, plenary sessions, and thought-provoking oral and poster presentations will explore innovative technologies from idea to implementation, concept to commercialization.

Join us. GHGT-17 will educate, inspire, and be a catalyst to help the industry leaders from around the world to accelerate the development of CCUS technologies on a commercial scale - globally.

# TECHNICAL THEMES

1. Advances in CO<sub>2</sub> capture technology development
2. Advances in CO<sub>2</sub> geological storage
3. CCS for industrial sources (non-power) & hydrogen
4. CCS technology assessment, cost, and system integration
5. CO<sub>2</sub> utilization for GHG mitigation
6. Demonstration projects and major national and international CCS research developments and demonstration programs
7. Developments in other storage options for CO<sub>2</sub>
8. Energy, climate change policies and CCS
9. Legal & regulatory aspects of CCS and long-term liability of CO<sub>2</sub> storage
10. Public perception and acceptance of CCS and communication on CCS
11. Towards negative CO<sub>2</sub> emissions
12. Transport and infrastructure development

## Call for Abstracts

Conference organizers invite submissions of abstracts for consideration for both oral and poster presentations. All abstracts should align with the technical themes of the conference and include detailed information to facilitate fair assessment. Abstracts must clearly and accurately represent the content of the paper proposed to be presented at GHGT-17.

Special attention will be given to the presentation of results and new developments in CCS, CCUS, and other clean energy technologies and opportunities. Substitution of papers will not be accepted. It is imperative that the submitted abstract reflects the actual paper that is intended to be presented at GHGT-17

By submitting an abstract, if accepted, at least one author is expected to register, attend, and participate in person at GHGT-17. All presenters will be required to pay the full registration fee.

**PLEASE NOTE THAT IF YOUR ABSTRACT IS SELECTED FOR ORAL OR POSTER PRESENTATION, A FULL PAPER IS STILL REQUIRED FOR PUBLICATION PROVIDING THE WORK HAS BEEN PRESENTED AT GHGT-17**

# ABSTRACT FORMAT

Abstracts should be between 500 and 1000 words, on the conference template, in English, and contain the paper title, author(s) name(s) and organization(s). Abstracts submitted below or above this word limit may not be accepted for review.

## Deadline

Abstracts should be submitted via the conference web site: [www.ghgt.info](http://www.ghgt.info). Abstract submission will open in **September 2023**. All abstracts must be submitted on the GHGT-17 abstract template, available on the Call for Abstracts page on the GHGT website. Abstracts must be received by the conference organizers by **January 16, 2024**. No further abstracts will be accepted after this deadline.

## Assessment

The Technical Program Committee (TPC) will assess and select the abstracts, based on the technical input from the Expert Panel, and allocate selected abstracts for oral or poster presentations. Authors may indicate their preference upon submission of their abstract but the TPC cannot guarantee their first choice.

### The Technical Program Committee includes:

Tim Dixon <i>Co-Chair</i>	IEAGHG, UK
Saviz Mortazavi <i>Co-Chair</i>	Natural Resources Canada, Canada
Mohammad Abu Zahra	GCCSI, UAE
Carlos Abanades	CSIC, Spain
Lincoln Paterson	CSIRO, Australia
Matthias Raab	CO <sub>2</sub> CRC, Australia
Paul Feron	CSIRO, Australia
Andrea Ramirez	Delft University, Netherlands
Sue Hovorka	The University of Texas at Austin, USA
Sean McCoy	University of Calgary, Canada
Nicola Clarke	IEAGHG, UK
Philip Llewellyn	TotalEnergies, France
Suzanne Killick	IEAGHG Secretariat, UK

The Expert review panel will evaluate the submitted. Each paper will be independently reviewed by a minimum of two Expert Panel Members, who will score the work and make their recommendations for the work to be presented as either an oral or a poster format.

## Notification

Subject to completion of the review process, applicants will receive notification whether their abstract has been accepted or not by the first week of **May 2024** indicating whether their paper was accepted or rejected. A full paper version of all accepted abstracts will be required and must be completed prior to the conference to ensure publication of the proceedings can be delivered on time after the GHGT-17.

## Publications

All selected Abstracts will be viewable on the agenda section of the conference website by early June 2024. After the conference has taken place authors will receive a link to upload their full paper on the conference proceedings for GHGT-17 on SSRN. All publishing costs with SSRN are met by the conference not the submitting author.

## Registration

Early Bird Online registration will be open **March 2024** and will end **June 1, 2024**. Exact dates will be included on the conference website and via social media closer to the time.

## Contact

For any assistance with the abstract submission process, please contact Suzanne Killick, GHGT-17 Conference Secretariat, at: [suzanne.killick@ieaghg.org](mailto:suzanne.killick@ieaghg.org).

## Theme / Subtheme Breakdown

The GHGT-17 Technical Program Committee has detailed a list of subthemes and authors are requested to select the most appropriate category for their paper during submission. Because the list is not exclusive, should an abstract not fit under any of the listed subthemes, they can be submitted under Other/Others.



# List of Themes and Subthemes

## 1. Advances in CO<sub>2</sub> Capture Technology Development

- » Alternative Gas Separation Principles
- » Capture: Ceramic and Metallic Membrane systems
- » Capture: Polymeric Amine systems
- » High Temperature Solid Looping: Calcium Looping
- » High Temperature Solid Looping: Chemical Looping
- » Other/No Subtheme
- » Oxy-Combustion for Solid Fuels
- » Oxy-Combustion NG Systems
- » Oxy-Combustion: ASU and other O<sub>2</sub> Separation Processes
- » CO<sub>2</sub> Purification
- » PCC: Alternative Aqueous Amines
- » PCC: Amine Aerosols
- » PCC: Amine Degradation
- » PCC: Amine Fundamentals, Rates and Thermodynamics
- » PCC: Amine Pilot Plants
- » PCC: Corrosion in Amine Systems
- » PCC: Ionic Liquids, Two-Phase Amines, Nonaqueous & other advanced Solvents
- » Process Modelling using Solvents
- » Solid Sorbent Materials
- » Solid Sorbent Processes

## 2. Advances in CO<sub>2</sub> Geological Storage

- » CO<sub>2</sub> Injectivity
- » Case Studies  
CO<sub>2</sub> for Enhanced Hydrocarbon Recovery
- » Costs (Storage Specific)
- » Environmental Impacts
- » Field-Scale Reservoir Modelling
- » Geochemical Modelling
- » Geomechanics Modelling
- » Leakage Modelling

- » Monitoring Geochemical Methods
- » Monitoring Geophysical Methods
- » Monitoring Pressure Methods
- » Monitoring Technologies and Techniques
- » Novel Storage Concepts
- » Other/No Subtheme
- » Pore-Scale Modelling
- » Remediation and Contingency Planning
- » Risk Assessment and Management Site Characterization and Selection
- » Storage Capacities
- » Storage Reservoir Engineering
- » Trapping Mechanisms
- » Wellbore Integrity
- » Wellbore Modelling

### **3. CCS for Industrial Sources**

- » (non-power) and Hydrogen
- » Cement
- » Gas LNG/Production
- » High Concentration CO<sub>2</sub> Sources
- » Iron and Steel
- » Other/No Subtheme
- » (Petro)Chemical Refineries

### **4. CCS Technology Assessment, Cost and System Integration**

- » CCS Integration into Competitive Electricity
- » Markets
- » Costs, including Comparison to other Mitigation Options
- » Energy, Efficiency in CCS Systems
- » Health, Safety and Environmental Risk Assessment
- » Integrated CCS Systems
- » Other/No Subtheme
- » Project Financing, Commercial Arrangements and Financial Risk

## **5. CO<sub>2</sub> Utilization for GHG Mitigation**

- » CO<sub>2</sub> for Energy (Storage)
- » CO<sub>2</sub> for Enhanced Geothermal
- » CO<sub>2</sub> use for Production of Algae or Chemicals
- » Other/No Subtheme

## **6. Demonstration Projects and Major National and International CCS Research**

- » Developments and Demonstration Programs
- » Capture only CCS Projects
- » Integrated Commercial CCS Projects - (Definition Private-Govt Funded)
- » Integrated Demonstration Projects - (Definition Govt Funded)(e.g. Regional Partnerships)
- » Integrated Pilot Projects - Research Project Vehicles
- » Non-Conventional Integrated Storage/Capture Projects
- » Program Overviews
- » Other/No Subtheme
- » Storage only CCS Projects

## **7. Developments in Other Storage Options for CO<sub>2</sub>**

- » Basalts and Other Low Permeability Reservoirs
- » Coal Beds
- » Mineralisation
- » Ocean Storage
- » Other/No Subtheme

## **8. Energy, Climate Change Policies and CCS**

- » CCS and Other Pollutants
- » CCS Technology Transfer
- » Emissions Trading Schemes (CDM, EU, California, Australia etc.)
- » GHG Footprint of Energy Options
- » Other/No Subtheme
- » Policy Approaches
- » The Role of CCS in Future Energy Systems
- » UNFCCC and Future Global Climate Policy and Policy Tools



## 9. Legal and Regulatory

- » Aspects of CCS and Long-Term Liability of CO<sub>2</sub> Storage
- » Emissions Accounting International Marine Treaties
- » Liability Transfer and Long-Term Liability
- » Management of Pore Space and Property Rights
- » Operational Liabilities, Financial Security and Project Closure Other/No Subtheme
- » Permitting Storage Site Exploration, Project Development and CO<sub>2</sub> Storage
- » Other/No Subtheme

## 10. Public Perception and Acceptance of CCS and Communication on CCS

- » Attitudes Towards CCS and the Portfolio of Low
- » Carbon Energy Technologies Capacity Building for CCS in Developing Countries
- » Case Studies of Communication Activities Education and Training Issues
- » Other/No Subtheme
- » Social Science Research for CCS Deployment

## 11. Towards Negative CO<sub>2</sub> Emissions

- » Biomass Energy use Combined with CCS Capturing CO<sub>2</sub> from the Air
- » Enhancing Natural Mineralisation Routes Ocean Fertilisation
- » Other/No Subtheme

## 12. Transport and Infrastructure Development

- » CO<sub>2</sub> Quality
- » Infrastructure and Source Sink matching
- » Other/ No Subtheme
- » Pipelines
- » Safety and Dispersion Shipping

## Publication of proceedings

The Social Science Research Network (SSRN) will publish the GHGT-17 proceedings presented at the conference. SSRN is composed of several specialized research networks. The proceedings will be fully citable and distributed digitally via their eJournal.

*Please note: To ensure the correct information is included in the conference program and app, any changes to the final paper that differ from the originally submitted abstract, such as paper title or co-authors, must be notified to the Secretariat before the full paper deadline.*