

The North American Carbon Dioxide Utilization Summit

27th – 28th April 2022 / Montreal, Canada

Key Topics

- o Canada vs. The World: A Global CCU Assessment
- o Assessing the Current CO₂ Transportation and Storage Logistics
- o Discussing the Role of the Government in Supporting the Development & Commercialization of CO₂ Utilization
- o Adjusting the Public Perception of CO₂ from a Waste Material to a Raw Material
- o Latest Developments on Technology in the Industry
- o Case Studies: Overview of Current Successful CO₂ Utilization Cases/Plants
- o Using CO₂ as a Feedstock for Chemicals and Fuels
- o CO₂ Utilization in the Oil and Gas Industry
- o The Utilization of CO₂ in the Construction Industry
- o Exploring Other End-Markets

WITH THANKS TO OUR SPONSOR:



For more info & registration
please contact Rohan Baryah
on +48 (0) 61 646 7022
or rbaryah@acieu.net

For sponsorship opportunities
please contact Sam Cormack
on +44 (0) 20 3141 0626
or samc@acieu.net

ACI's 16th Carbon Dioxide Utilisation Summit will follow on from our successful series of conferences focusing on the re-use of the green house gas CO₂ and converting this into profitable and sustainable materials.

The two day conference brings together senior experts from various CO₂ emitting industries discussing the **sustainable, technological and commercial** aspects of CO₂ Utilization in Canada. With technology comparisons focusing on economic, environmental and social indicators, our panel of speakers will highlight knowledgeable insights into commercial developments and application. Furthermore the conference will delve into innovative developments and projects in the CO₂ Utilization industry.

Who Should Attend:

Senior representatives from chemical, construction, oil and gas companies, technology developers and providers, algae production companies, petro-chemical manufacturers, research organisation, Non Governmental Organisations and market representatives



Speaking Opportunities



If you would like to be considered as a speaker, for a 20-30mins presentation, at the event please submit an abstract for consideration to:


Daniel Graycon +44 (0) 20 31410618/ dgraycon@acieu.net

Key Topics

- Canada vs. The World: A Global CCU Assessment
- Assessing the Current CO₂ Transportation and Storage Logistics
- Discussing the Role of the Government in Supporting the Development & Commercialization of CO₂ Utilization
- Adjusting the Public Perception of CO₂ from a Waste Material to a Raw Material
- Latest Developments on Technology in the Industry
- Case Studies: Overview of Current Successful CO₂ Utilization Cases/Plants
- Using CO₂ as a Feedstock for Chemicals and Fuels
- CO₂ Utilization in the Oil and Gas Industry
- The Utilization of CO₂ in the Construction Industry
- Exploring Other End-Markets

Commercial & Sponsorship Opportunities

Gain direct access to our senior level audience and gain an increased level of visibility through branding and networking. For detailed information on sponsorship and commercial opportunities, please contact Sam Cormack


 +44 (0) 20 3141 0626

 samc@acieu.net

 <http://www.acieu.net>

Registration is Simple

If you would like to register for this event or wish to find out more information, you can contact Rohan Baryah using any of the following methods:

 +48 616 467 022

 rbaryah@acieu.net

 <http://www.acieu.net>

The North American Carbon Dioxide Utilization Summit

Montreal, Canada

27th – 28th

April
2022

DAY 1

Wednesday 27th April 2022

08:00 REGISTRATION & COFFEE

09:00 CHAIRMAN'S OPENING REMARKS

09:15 CONFERENCE PRESENTATION

Canadian CCUS Advantage

- Canada's global leadership and expertise in CCUS.
- Availability of infrastructure to test and validate.
- Opportunities for tech in Canada.
- Project implementation here and around the world.



Greg Maidment
Director, Operations and
Applied Research
**Carbon Management
Canada**

10:00 Presentation Q&A

10:00 SESSION ONE
Developments in CO₂ Capture, with
Future Outlook Towards Utilization

Advances in Direct Air Capture Technology and Current Use in CCS/CCUS projects

- Advances in Direct Air Capture Technology and Current Use in CCS/CCUS projects
- The economics of CO₂ capture and improved sustainability
- Potential and future applications of captured CO₂ for utilization within a circular value chain



Robert L. Zeller
VP Technology
Oxy Low Carbon Ventures

10:00

10:30 Lehigh Edmonton CCUS - Project Update

- Project 3d model and current emission reduction results and goals.
- Comparison to other capture projects in various stages of development under parent company Heidelberg.
- CO₂ storage options in Edmonton.
- Emissions trajectory for Edmonton showing the impact on emission intensity from adding CCUS, and from selected project options.
- Project development roadmap, showing phases, approval gates, budget and certainty level.

- Project Business Case Influences.



Corwyn Bruce
Sr. Project Manager - CCS/
CCUS
Lehigh Hanson

11:00 Panel Q&A

11:15 MORNING REFRESHMENTS

11:45 CONFERENCE PRESENTATION

Discussing the Role of the Government in Supporting the Development and Commercialization of CO₂ Utilization

- The need for the industry to have clear regulations on both national and North American levels
- The need for the industry to have clear regulations on both national and North American levels
- Navigating the regulatory/tax/credit system
- Incentivizing the capturing and usage of CO₂ - penalties vs. rewards
- Exploring new policy proposals which could make carbon markets not only feasible but also profitable

12:30 SESSION TWO

Funding CCU Projects

12:30 Addressing the Opportunities in
Financing Carbon Capture and
Utilization

- Investment snapshot: Case studies of success stories of financed carbon capture.
- The importance of investing in clean tech.
- Encouraging the funding for green investments.



Donald Gaston
President and CEO
**Prairie State Generating
Company**

13:00 Enabling CCUS Project Deployment
Through Carbon Markets

- CCS projects face technical, non-technical, and policy challenges that culminate in difficulty permitting and financing projects.
- Compliance and voluntary carbon markets have provided financial support for emissions prevention and reduction projects for years and the market is expanding rapidly

The North American Carbon Dioxide Utilization Summit

Montreal, Canada

27th – 28th

April
2022

- The American Carbon Registry has an active CCS methodology for the quantification. Monitoring, reporting, and verification of GHG emissions reductions and removals and is working to expand the current methodology to support additional projects.



Maris Densmore
Director, Engineered Solutions;
American Carbon Registry
Winrock International

13:30 **Panel Q&A**

13:45 **NETWORKING LUNCH**

14:45 **SESSION THREE**
Latest Developments on Technology in the Industry

14:45 **Converting CO₂ Capture Solutions into Valuable Chemicals**

- Conversion of reactive carbon capture solutions into value-added products (e.g. CO, formate) in an electrochemical flow reactor.
- Integration of carbon capture with electrochemical utilisation.



Eric Lees
PHD Researcher
The University of British Columbia

15:15 **Integrating Bottom-up Catalyst Design with Operando Spectroscopy Towards the Electrification of Fuels and Chemical Manufacturing**

- CO₂ conversion with electrochemical technologies.
- Electrocatalyst design for high efficiency and selectivity.
- CO₂ as a building block for commodity and fine chemicals.
- In Situ reaction analysis with spectroscopic techniques.



Nikolay Kornienko
Assistant Professor
University of Montreal

15:45 **The Potential of Power-to-X: Laboratory Scale to Commercial Size Biological Methanation**

- Researching the critical parameters of a commercial size biological methanation.
- Integration of biological methanation to an intermittent energy system.

- Increasing technology readiness level by upscaling to pilot scale.



Brian Dahl Jønsen
PHD Student
University of Southern Denmark

16:15 **Panel Q&A**

16:35 **AFTERNOON REFRESHMENTS**

17:05 **CONFERENCE PRESENTATION**

A Case Study of Electrochemical CO₂ Reduction Scale Up in the NRG COSIA Carbon XPRIZE Competition.

- Introduction to the electrochemical CO₂ reduction and the NRG COSIA Carbon XPRIZE.
- Summary of the scale up process and pilot in the finals of the competition.
- Key learnings for the pilot demonstration.
- Next steps for CERT and outlook for electrochemical CO₂ Utilization.



Christine Gabardo
Director of Technology
CERT

17:35 **Presentation Q&A**

17:45 **CHAIRMAN'S CLOSING REMARKS**

17:55 **CLOSE OF DAY ONE**

DAY 2

Thursday 28th April 2022

08:30 **REGISTRATION & COFFEE**

09:00 **CHAIRMAN'S OPENING REMARKS**



David Lynch
General Manager R&D
Enerkem

09:15 **SESSION FOUR**
Using CO₂ as a Feedstock for Chemicals and Fuels

- Current & future projects and opportunities for CO₂ as a chemical feedstock
- Assessing the logistics for the creation of e-fuels using CO₂
- Capitalising on the potential of CO₂ as an alternative feedstock for polymer production, carbonated drinks, bioplastics, etc.

The North American Carbon Dioxide Utilization Summit

Montreal, Canada

27th – 28th

April
2022

09:15



David Lynch
General Manager R&D
Enerkem

SkyNRG: Sustainable Aviation Fuel (SAF) and Synergies for CO₂ Utilization

- SkyNRG's efforts in North America.
- SkyNRG's recent SAF market study - High level results and push for E-fuels and advanced biofuels.
- Our setup for our first facility related to this market.
- Potential synergies to link/expand this project with CO₂/E-fuels.

09:45

Hartej Singh
Senior Associate
SkyNRG Americas

10:15

Panel Q&A

10:30

CONFERENCE PRESENTATION

Delta Technologies for CO₂ Capture from Flue Gases of Coal and Natural Gas Fired Boilers

- Advanced plant design to process multi-feed flue gases
- Integrated solvent reclaimer system to maintain the solvent efficiency
- Optimum and modular plant design at minimum operating and capital expenditures
- Minimum emissions to atmosphere and minimum waste for disposal



Ahmed Aboudheir, PhD, P.Eng.
Chief Technology Officer
Delta CleanTech

11:00

Presentation Q&A

11:10

MORNING REFRESHMENTS

11:40

SESSION FIVE

CO₂ Utilization in the Oil and Gas Industry

11:40

How Oil and Gas Companies Can Accommodate a CCUS Economy

- How did we get where we are today? A brief timeline of projects over 50 years. Why did some succeed while others did not?
- An overview of the current state of the market, including a breakdown of existing commercial projects and a glimpse into the project pipeline.

- What factors will drive future investment? A review of existing policies, financial incentives, and revenue streams, as well as non-monetary drivers.
- Cooperation, competition and case studies on CO₂ hubs. A look at what's being done in each oil and gas sector, understanding the end markets for CO₂ utilization and how CO₂ hubs could help bring partners together.



Peter Marrin
Senior Research Analyst
Guidehouse Insights

12:10

Sustainable Energy - Affordable and Environmentally Acceptable

- CCUS in the oil industry can make Canada's oil the most environmentally sustainable in the world.
- CO₂ utilization and storage in depleted oil fields and underlying geological formations will pave the road to Net-Zero.
- CCUS in the energy and power sectors.



Ranjith Narayanasamy
President and CEO
Petroleum Technology
Research Centre

12:40

Panel Q&A

12:55

LUNCH

13:55

CONFERENCE PRESENTATION

The Utilization of CO₂ in the Construction Industry.

- How CO₂ can be valuable resource to the construction industry, and help move towards sustainable production of materials
- Case study: successfully made CO₂ cured concrete & its benefits



Robert Cumming
Director, Environment
Lafarge Canada Inc

14:25

Presentation Q&A

14:35

CONFERENCE PRESENTATION

Case Study - Deployment of a CO₂ Mineralization Technology for Concrete Production.

- CO₂-based beneficiation of concrete wash water developed in lab, validated and deployed in the field.

The North American Carbon Dioxide Utilization Summit

Montreal, Canada

27th – 28th
April
2022

- Technology was a winner of the 2020 NRG COSIA Carbon XPRIZE.
- Overview of first year of operations.



Sean Monkman
SVP Technology Development
CarbonCure

15:05 **Presentation Q&A**

15:15 **Conference Presentation**

Carbon Capture Technology and Commercial CO₂ Sequestration for a Cleaner, Circular Lifestyle

- CarbinX Technology - Patented micro-scale carbon capture solution for natural gas heating systems.
- Sequestering carbon emissions within environmentally friendly products, accelerating the transition to a circular lifestyle.
- Upcycled carbon products - CleanO2 Soap and Body wash.
- Future outlook, market size and opportunities.



Jaeson Cardiff
CEO and Cofounder
CleanO2

15:45 **Presentation Q&A**

15:55 **CHAIRMAN'S CLOSING REMARKS**



David Lynch
General Manager R&D
Enerkem

16:05 **END OF CONFERENCE & AFTERNOON REFRESHMENTS**

More information & registration

If you would like to register for this event or wish to find out more information, you can contact **Rohan Baryah** using any of the following methods:

Tel: +48 616 467 022

Email: rbaryah@acieu.net

Web: <http://www.acieu.net>

Address: 25 Southampton Buildings, London, WC2 1AL

Registration Is Simple

Conference (Includes Access to Documentation Pack)
27th & 28th April 2022

\$2,395.00

Documentation Pack Only

\$615.00

Please Note.

Members and customers of all supporting organizations are entitled to a discount off their conference package.

For more information please call +48 616 467 022

Documentation Packet Available

We are selling the 16th Carbon Dioxide Utilization papers at just \$585 (+\$30 P&P). Simply tick the box on the booking form, send it with payment and your copy will be on its way to you after the meeting. This important manual will be a source of invaluable reference for the future.

About ACI

ACI, a UK owned company, has been running successful conferences in the USA since 1999. Headquartered in Chicago, ACI opened its European head office in London at the end of 2005 and has expanded rapidly, launching a series of events in key industries including maritime, energy, chemicals, cosmetics & pharma and opening offices in Poznan (Poland) & Pune (India).

Terms & Conditions

Payment

Payment must be received within five business days of returning the signed contract. After receiving payment a VAT receipt will be issued. If you do not receive a letter outlining details two weeks prior to the event, please contact the Conference Coordinator at ACI Europe Ltd.

Discounts are available for multiple/group bookings. Please call +48 616 467 022 for more information.

Cancellations

Substitutions are welcome up to 24 hours prior to the event. Cancellations must be received in writing no less than 3 weeks prior to the start of the conference; a full credit voucher towards a future ACI conference will be issued. Any cancellation received less than 3 weeks prior to the start of the event shall be deemed to be a breach of this contract by client, and accordingly, no credits will be given. Cancellations must be received in writing by mail or fax three weeks before the conference. Thereafter the full conference fee is payable. If for any reason ACI Europe Ltd decides to amend, cancel or postpone this conference, the conference fee will not be refunded. Furthermore, ACI Europe Ltd will not be responsible for covering airfare, hotel or other costs incurred by registrants. In the event that ACI Europe Ltd cancel or postpone the event, ACI Europe Ltd reserves the right to transfer this booking to another conference to be held in the following twelve months, or to provide a credit of an equivalent amount to another conference within the following twelve months. The construction, validity and performance of this agreement shall be governed in all respects by the laws of England to the exclusive jurisdiction of whose courts the Parties hereby agree to submit.

Accommodation

The cost of accommodation is not included in the event fee. Preferential rates will be arranged with or near the event venue, and all confirmed delegates will be given details of how to book accommodation at this rate in due course.